

**General Management Plan Amendment/
Environmental Assessment**

**Proposed Land Exchange between Fort
Frederica National Monument and
Christ Church of Saint Simons Island**

Glynn County, Georgia

United States Department of the Interior
National Park Service

June 2006



U.S. Department of the Interior
National Park Service

Proposed Land Exchange for Fort Frederica National Monument
General Management Plan/Environmental Assessment

Fort Frederica National Monument
Glynn County, Georgia

SUMMARY

The proposed action is to exchange approximately 6 acres of land that is currently part of Fort Frederica National Monument for approximately 8.7 acres of land to be acquired by Christ Church of Saint Simons Island. The parcel being received from the church would be added to the park boundary and managed by the National Park Service. The church would construct and operate several new facilities on the 6 acre site being received from the National Park Service. These could include a new church building, classrooms, a courtyard, a passenger drop-off area, and parking for approximately 225 vehicles.

The proposed land exchange would constitute an amendment to the existing *General Management Plan* (NPS 2002). The purpose of the amendment is to select and recommend implementation of a preferred alternative action for managing the new park land.

Two action alternatives are proposed. Alternative F would include very limited development of new facilities within the 8.7 parcel to be received by the National Park Service. Alternative G (the preferred alternative) would involve creation of a Visitor Services Zone within the 8.7 acre parcel of land to be received by the National Park Service, with the ability to provide new but limited hardened facilities. Alternative G would provide a greater amount and variety of interpretive and other facilities for visitors as compared with Alternative F. Both action alternatives would meet all of the requirements of National Park Service laws, policies and mandates.

PUBLIC COMMENT

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. This environmental assessment will be on public review for 30 days. Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, from businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Please address written comments to:

Fort Frederica National Monument
Attn: Kim Coons
Fort Frederica Land Exchange Comments
6515 Frederica Road
St. Simons Island, GA 31522

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PURPOSE AND NEED

PURPOSE OF THE GENERAL MANAGEMENT PLAN AMENDMENT/ENVIRONMENTAL ASSESSMENT

A General Management Plan (GMP) for Fort Frederica was completed and approved on November 15, 2002. Subsequently, on November 30, 2004, Congress passed Public Law 108-417, authorizing the Secretary of the Interior to exchange approximately 6 acres of National Monument land adjacent to the boundary with Christ Church of Saint Simons Island for 8.7 acres of land across Frederica Road to the northeast of the entrance to the National Monument. This action requires compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) as well as other laws and National Park Service policies

Fort Frederica is located on St. Simons Island, Glynn County, Georgia (Figure 1). The property currently owned by the National Park Service is located at the southern edge of the park on the north side of Stevens Road just to the west of Christ Church. The property that is being provided by Christ Church is located to the north of Delamotte Road on the east side of Frederica Road to the northeast of the National Monument's main entrance (Figure 2).

Public Law 74-617 established the Fort Frederica National Monument on Saint Simons Island on May 26, 1936. The original Act limited the site to 80 acres and authorized the Secretary of the Interior "to accept donations of land, interests in land, buildings, structures, and other property within the boundaries of the said national monument..." It also authorized acceptance of donations of funds for the purchase of tracts of land within the National Monument. Congress, through Public Law 81-793, amended the establishing legislation on September 20, 1950 to increase the authorized boundary from 80 acres to 100 acres. Finally, on May 16, 1958 Congress approved Public Law 85-401, which increased the authorized boundary from 100 acres to 250 acres and directed the Secretary of the Interior to acquire, "by purchase, condemnation, or otherwise," the Battle of Bloody Marsh memorial site on Saint Simons Island. Furthermore, Public Law 85-401 authorized and directed the acquisition of additional marshland acreage subject to the 250-acre limitation, across the Frederica River to the west of the National Monument for additional protection of the historic scene. Fort Frederica acquired another 28 acres of land, including river frontage, on the south side of the town site in 1994.

Christ Church of St. Simons Island recently presented the park with the opportunity to acquire an additional 8.7 acres of land in exchange for 6 acres of existing park property. No cultural resources have been identified on the 6 acre parcel of land to be received by the church, but extant foundations of a colonial period house on the site are speculated by some to be the remains of General Oglethorpe's only house in the New World. Therefore, the proposed land exchange would potentially allow for increased protection of cultural resources associated with the early development of Fort Frederica from degradation and

Fort Frederica National Monument General Management Plan Amendment

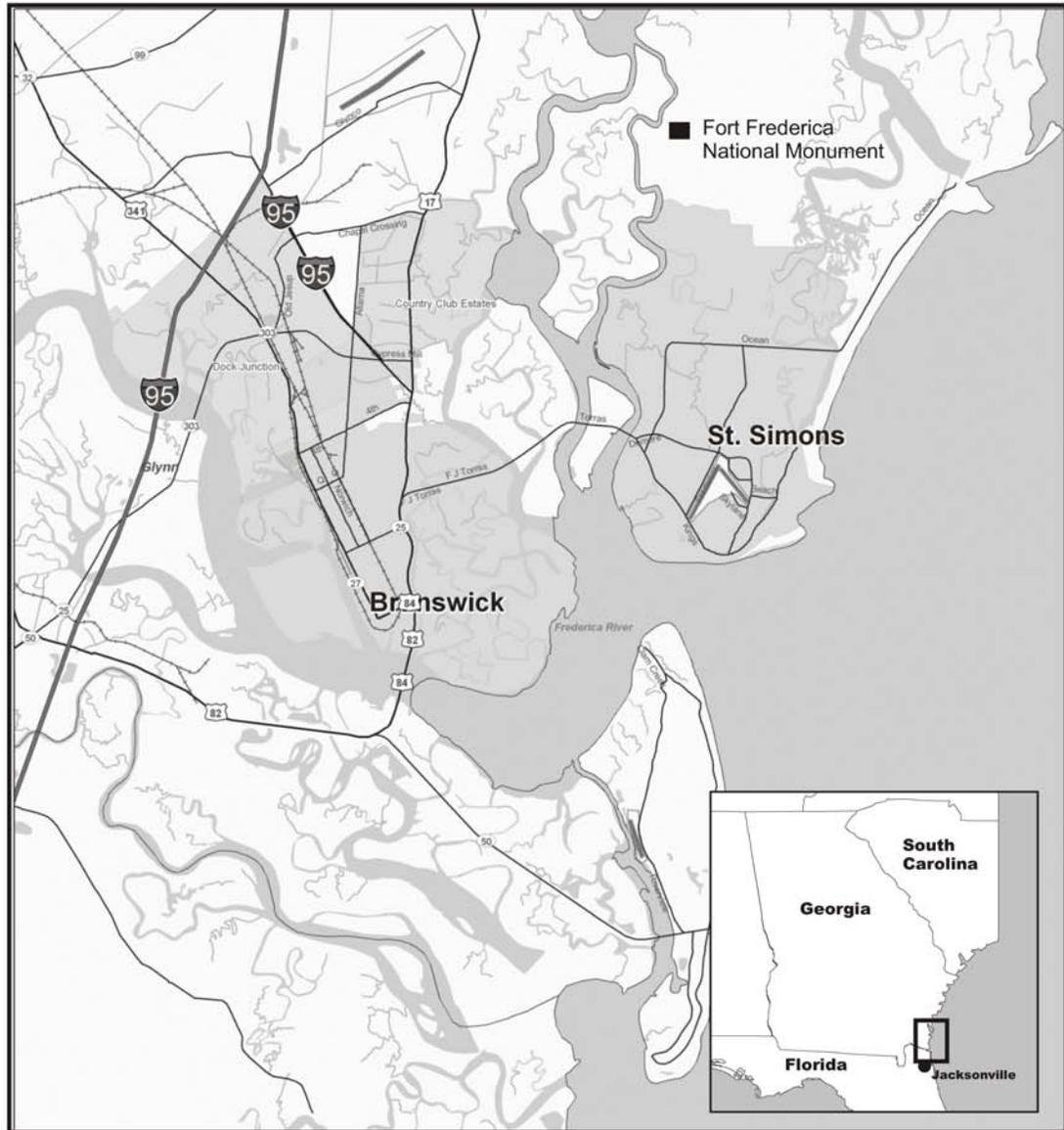


Figure 1
Location Map

Fort Frederica National Monument General Management Plan Amendment

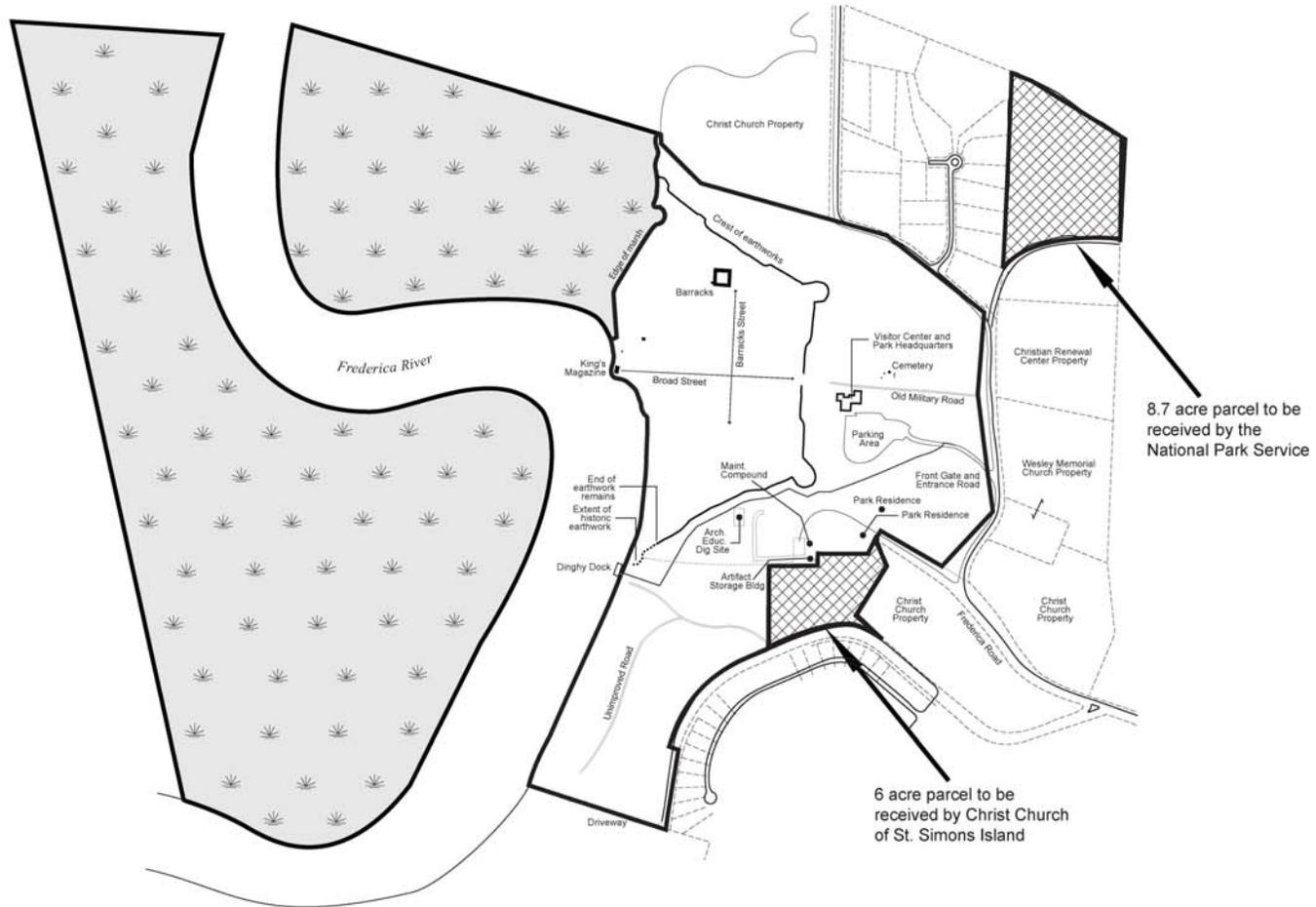


Figure 2
Location of Parcels to be Exchanged

development. This is consistent with the overall purpose of Fort Frederica National Monument as describe previously.

The parcel 8.7 acre of land that would be received from the church would be added to the park boundary and managed by the National Park Service. The church would construct and operate several new facilities on the 6 acre site being received from the National Park Service. These would include a new church building, classrooms, a courtyard, a passenger drop-off area, and parking for approximately 225 vehicles.

The proposed land exchange would constitute an amendment to the existing *General Management Plan* (NPS 2002). The purpose of the amendment is to select and recommend implementation of a preferred alternative action for managing the new park land. The proposed amendment does not affect Bloody Marsh Battle Site, located 6 miles south of the Fort Frederica headquarters and visitor center. Therefore, the Bloody Marsh area is not discussed further in this environmental assessment.

General management plans represent the broadest level of planning conducted by the National Park Service, and are intended to provide overall guidance for making informed decisions about future conditions in national parks. The objective of the general management plan for Fort Frederica National Monument is to support the purpose for which the park was established and to formalize the park's future direction. The plan is the basic tool for managing the park for the next 15-20 years. The specific purposes of the general management plan are to:

- Specify resource conditions and visitor experiences to be achieved in the park.

- Provide the basic foundation for decision-making regarding the management of the park.

General management plans are required to be in compliance with the National Environmental Policy Act of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982). According to policy, a National Environmental Policy Act environmental assessment for proposed federal actions that have the potential to significantly affect the environment are required to be prepared simultaneously with a general management plan under the guidelines established in Director's Order 2 – Park Planning (NPS 1999) and *Director's Order 12 – Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001a). Because it is a federal action with the potential to impact the environment, an environmental assessment is required to be prepared in conjunction with the general management plan amendment.

BACKGROUND

Fort Frederica preserves the remains of a fortified town established and laid out by Governor James Oglethorpe in 1736 to defend against invasion from the Spanish colonies in Florida. The monument's authorized boundary contains 250 acres (Figure 2). This includes the Bloody Marsh Battle Site, located 6 miles south of the Fort Frederica headquarters and visitor center. In addition to the ruins of the fort and remains of foundations of the town's residences, development at the site includes a visitor center/museum/administrative complex, maintenance buildings, 2 employee residences,

monuments, roads and parking lots. The Bloody Marsh Battle site contains a parking lot, an interpretive shelter, and a granite memorial donated by the Georgia Society of the Colonial Dames of America. The following is a summary of the primary features of the park and the reasons the park was established:

Fort Frederica represents one phase of our nation's early colonial history. It was one of the earliest English settlements of any kind in the territory that was to become the State of Georgia.

The two sites that comprise the park demonstrate the intensity of the competition between the three most powerful nations on earth at the time (Britain, France, and Spain) for domination of new world and its resources.

Fort Frederica was a prosperous community of substantial homes whose residents were the tradesmen and farmers who supplied the garrison stationed there in much the same way that communities surrounding large military installations today provide goods and services for those installations upon which they depend for their prosperity.

In 1739 Britain and Spain entered a state of war that eventually involved Fort Frederica. Oglethorpe's unsuccessful attempt to take Spanish St. Augustine in 1740 was answered in 1742 when the Spanish Governor of Florida attempted to capture and destroy Fort Frederica. Oglethorpe's troops routed the invaders in two separate skirmishes at Gully Hole Creek and Bloody Marsh.

There have been at least 40 archeological investigations at Fort Frederica since the 1940's. Many of the excavated sites have been left exposed as interpretive exhibits, with some stabilization accomplished to protect the features.

Earthworks that formed part of the town's defenses are still in evidence though greatly reduced in size and softened in shape by time

Fort Frederica is also the site of one of the most innovative and successful examples of "Parks as Classrooms" in the National Park System.

Fort Frederica's coastal location and historical isolation have bestowed upon it natural resources worthy of note and protection, including upland pine and mixed hardwood forest and marsh habitat types.

PROJECT SITE DESCRIPTION

The 8.7 acre parcel of land to be received by the National Park Service is located immediately north of Delamotte Road, and is completely forested. The elevation of this site is also approximately 5 feet according to the available topographic map. The site slopes downward to the north where it borders a wetland, based on the National Wetland Inventory maps. According to the available soil maps for the area, the site is characterized by hydric soils over 100 percent of its area. A detailed wetland survey has not been conducted, however. A foundation of a house exists on this site, which has been fenced off. The house is thought to have been occupied by James Oglethorpe, but is no definite proof exists that substantiates this (Honerkamp 1984). No "on the ground" surveys of cultural resources have yet been done on this site.

The two project sites are shown in Figure 2. The 6 acre parcel of land to be received by the church is located in a forested area located immediately to the south of the park maintenance buildings. The elevation of this site is approximately 10 feet. According to the report by the National Park Service Southeast Archeological Center, the site has extensive low areas with a considerable amount of standing water (SEAC 2005). The study conducted by the National Park Service Southeast Archeological Center showed that no archeological or historical resources are located on this site. According to the available soil maps for the area, the site is not characterized by hydric soils, however. A wetland survey has not been conducted.

NEED FOR THE GENERAL MANAGEMENT PLAN AMENDMENT

Fort Frederica National Monument was established to preserve, protect and interpret the resources associated with the town of colonial Frederica. A *General Management Plan* was published in 2002 (NPS 2002) to establish and guide the overall management, development and use of Fort Frederica National Monument in ways that best meet visitor needs and expectations while preserving the park's cultural and natural resources. Although the majority of the General Management Plan remains valid, the effects of the proposed land exchange need to be addressed in an amendment.

PURPOSE AND SIGNIFICANCE OF THE PARK

Fort Frederica National Monument on Saint Simons Island was established on May 26, 1936. The current General Management Plan establishes and guides the overall purpose, management, development and use of Fort Frederica National Monument in ways that best suit visitors while preserving the park's cultural and natural resources.

PARK PURPOSE

The purpose of Fort Frederica National Monument is to preserve and protect the historical, archeological, and scenic resources associated with colonial Frederica and to use those resources to educate, interpret, explain and illustrate the role of Fort Frederica in American history.

Park Significance

The Fort Frederica town site and the associated Battle of Bloody Marsh Monument commemorate the British victory over the Spanish on Saint Simons Island that effectively ended the Spanish claim to Georgia and the Carolinas.

The settlement at Fort Frederica was home at various times during the Frederica period (1736-1758) for General James Edward Oglethorpe, founder and first governor of the British colony of Georgia and John and Charles Wesley, the founders of Methodism.

The National Monument contains a remarkable breadth of intact archeological resources of the colonial period and the site itself is important in the development of historical archeology as a science and as an educational medium.

Park Mission and Mission Goals

The General Management Plan (NPS 2002) was developed in order to achieve Fort Frederica National Monument's mission and its associated mission goals. The mission statement integrates the preceding statement of purpose and significance for the National Monument, describing the reason the park exists and the contribution it makes to understanding an important part of our nation's history. The four mission goals are derived from the mission, and broadly identify the desired conditions in the areas of resource management, site interpretation and visitor experience, facilities and park operations, and partnership development, that park management will seek to attain.

Mission Statement

The mission of the National Monument is more than preserving the physical remnants of Frederica. It is also important to preserve its unique sense of antiquity and to use this time capsule as a tool to educate present and future generations about the nation's colonial past.

Mission Goals

The following is a list of mission goals of Fort Frederica National Monument:

All cultural resources and their relationships with the land are protected and preserved.

Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Fort Frederica National Monument uses current management practices, systems, and technologies to accomplish its mission.

Fort Frederica National Monument increases its managerial capabilities through volunteerism, partnerships, and grants.

Objectives of the Proposed Land Exchange

The goals of resource protection, improved safety, and enhancement of the educational and operational environment guided the development of project objectives. These objectives aided the National Park Service in developing the alternatives and their specific characteristics to ensure successful project implementation. The primary objective of the proposed land exchange is to allow for the further protection of cultural resources through acquisition of land that could contain significant and but as yet unstudied historical and archeological resources. The parcel to be acquired by the National Park Service would be preserved with the primary objective of preserving and interpreting historical or archeological resources that are identified on the site. A secondary objective would include preserving and interpreting natural resources on the site.

PROJECT BACKGROUND, PREVIOUS PLANNING

Project Background and Scope

In 1916, Congress passed the Organic Act, which created the National Park Service. Through this act, Congress established the National Park Service's mission to "preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations." Thus, any management action in the park must recognize that preserving the natural and cultural resources and values of the park is paramount, and that any visitor activities associated with "enjoyment, education, and inspiration" can occur only to the extent that they do not impair the natural and cultural resources and values for future generations.

Public law 74-617 established the Fort Frederica National Monument on Saint Simons Island on May 26, 1936. The original Act limited the site to 80 acres and authorized the Secretary of the Interior "to accept donations of land, interests in land, buildings, structures, and other property within the boundaries of the said national monument...." It also authorized acceptance of donations of funds for the purchase of tracts of land within the National Monument. Congress, through Public Law 81-793, amended the establishing legislation on September 20, 1950 to increase the authorized boundary from 80 acres to 100 acres. On May 16, 1958 Congress approved Public Law 85-401, which increased the authorized boundary from 100 acres to 250 acres and directed the Secretary of the Interior to acquire, "by purchase, condemnation, or otherwise", the Battle of Bloody Marsh memorial site on Saint Simons Island. Furthermore, Public Law 85-401 authorized and directed the acquisition of additional marshland acreage subject to the 250-acre limitation, across the Frederica River to the west of the National Monument for additional protection of the historic scene. Fort Frederica acquired another 28 acres of land, including river frontage, on the south side of the town site in 1994.

RELATIONSHIP TO OTHER PLANNING PROJECTS

Other planning projects that have been completed recently include the following:

- A Fire Management Plan was completed in May, 2004.

- A Collection Management Plan was completed in 2000 by the National Park Service Southeast Regional Office, along with a collection condition and a paper condition survey.

- An Archeological Overview and Assessment was finished in 2002 by the National Park Service Southeast Archeological Center and is awaiting final printing.

- A Resource Management Plan was completed in 1993.

- A Cultural Landscape Plan is in the planning phase.

PUBLIC SCOPING

Public scoping is a process that is initiated at the beginning of the study to solicit public and internal concerns relating to a proposed action. The Council on Environmental

Quality (Council on Environmental Quality, 1978) guidelines for implementing the National Environmental Policy Act and the National Park Service National Environmental Impact Analysis and Decision Making Handbook (National Park Service, 2001b) require public scoping of federal actions that would require an environmental impact statement. Although public scoping is not required for an environmental assessment, the National Park Service conducted scoping for this project to ensure input from all interested stakeholders.

A scoping letter (provided in Appendix A) and newsletter were distributed in April, 2005 to individuals, organizations, agencies, and the media. The newsletter was posted on the park's website inviting interested parties to comment on the proposed amendment. In June 27, 2006, the park held a public meeting at XYZ. The purpose of the meeting was to solicit input on the three preliminary alternatives and identify the potential issues of concern for the project.

ISSUES AND IMPACT TOPICS

Issues

Issues and concerns affecting the proposed land exchange were identified during National Park Service planning efforts, with input from interested individuals, groups, local representatives, and local, state and federal agencies.

A variety of issues and concerns associated with potential effects of the land exchange on natural resources, cultural resources, and the human environment are also involved. These have been incorporated into the environmental assessment. The issues are as follows:

For the 6 acre parcel of land being transferred to the church:

Potential effects of land clearing on terrestrial vegetation, wildlife, special status species, soils, wetlands, streams, water quality, and cultural resources

For the parcel of land being received by the National Park Service:

Potential effects of land clearing on terrestrial vegetation, wildlife, special status species, soils, wetlands, streams, water quality, and cultural resources

Provision of road access to the site

Derivation of Impact Topics

Impact topics are the resources of concern that could be affected by the range of land exchange alternatives. Impact topics allow for a focusing of the evaluation of the potential environmental consequences of the alternatives. Candidate impact topics were first identified based on legislative requirements, executive orders, topics specified in Director's Order #12 and Handbook (National Park Service, 2001b), *Management Policies 2001* (National Park Service, 2001a), guidance from the National Park Service, other agencies, public concerns, and resource information specific to Fort Frederica National Monument.

Impact Topics Included in this Document

Impact topics included in this document will be included and described in the “Affected Environment” chapter. Impact topics analyzed for this project are listed in Table 1.

Impact Topics Dismissed From Further Analysis

Based on site-specific conditions, several candidate impact topics were dismissed from further consideration in the environmental assessment. These impact topics include are listed in Table 1. The resources described in impact topics dismissed in this document are not included or described in the “Affected Environment” or “Environmental Consequences” chapters of this environmental assessment.

TABLE 1. IMPACT TOPICS RETAINED OR DISMISSED FROM FURTHER EVALUATION AND ASSOCIATED REGULATORY SOURCES.

Impact Topic	Retained or Dismissed	Relevant Regulations or Policies
Historic and cultural resources, and design of the built environment	Retained	40 Code of Federal Regulations 1500 (regulations for implementing the National Environmental Policy Act); National Park Service Director's Order #12; Section 106 of the National Historic Preservation Act
Soils	Retained	National Park Service Management Policy 4.8.2.4, 2001
Vegetation –Native Plant Communities	Retained	National Park Service Management Policy 4.4.2, 2001
Wildlife	Retained	Management Policies 2001, Migratory Bird Treaty Act
Wetlands	Retained	Executive Order 11990; Clean Water Act Section 404; National Park Service Director's Order #77-1; Executive Order 11988; National Park Service Management Policy 4.6.4 and 4.6.5.
Special Status Species	Retained	Endangered Species Act of 1973; National Park Service Management Policy 4.4.2.3, 2001; 40 Code of Federal Regulations 1500 (regulations for implementing the National Environmental Policy Act), North Carolina Department of Environment and Natural Resources
Socioeconomics	Retained	40 Code of Federal Regulations 1500 (regulations for implementing National Environmental Policy Act)
Visitor use and Experience and Viewshed	Retained	National Park Service Organic Act; National Park Service Management Policy 8.2, 2001
Park Operations	Retained	National Park Service Management Policy 9.1, 2001
Transportation	Retained	National Park Service Management Policy 9.2, 2001
Soundscape/Noise	Retained	National Park Service Management Policy 4.9, 2001

TABLE 1. IMPACT TOPICS RETAINED OR DISMISSED FROM FURTHER EVALUATION AND ASSOCIATED REGULATORY SOURCES (COMPLETED).

Impact Topic	Retained or Dismissed	Relevant Regulations or Policies
Water Quality	Dismissed	Executive Order 12088; Executive Order 11990; National Park Service Management Policy 4.6.3, 2001; Federal Water Pollution Control Act [The Clean Water Act of 1972 (as amended in 1977)]; Title 15 A, Subchapter 4B and Subchapter 06 H of the North Carolina Administrative Code.
Floodplains	Dismissed	Executive Order 11988 (Floodplain Management)
Air Quality Not required	Dismissed	Federal Clean Air Act (CAA); CAA Amendments of 1990 (CAAA); National Park Service Management Policy, 4.7.1, 2001
Prime and Unique Farmlands	Dismissed	Council on Environmental Quality 1980 memorandum on prime and unique farmlands; 40 Code of Federal Regulations 1500 (regulations for implementing National Environmental Policy Act, section 1508.27
Natural Lightscape (Night Sky) Not Required	Dismissed	National Park Service Management Policy 4.10, 2001
Ecologically Critical Areas, Wilderness, Wild and Scenic Rivers, or Other Unique Natural Resources	Dismissed	36 Code of Federal Regulations 62 (criteria for national natural landmarks); National Park Service Management Policies 2001; Wilderness Act of 1964, National Park Service Management Policy 6.3, 2001
Public Health and Safety Not required	Dismissed	National Park Service Management Policy 8.2.5, 2001; U.S. Coast Guard Boating Safety Regulations
Sacred Sites	Dismissed	Executive Order 13007; National Park Service Management Policy 5.3-5.3.2, 2001

Impact Topics Included in This Document

The following impact topics have been retained for further analysis in the environmental assessment, based on the rationale provided for each resource area:

Soils: Negligible effects on soils are expected at the site to be acquired by the park since limited facilities would be constructed and operated at this location. Apparently there are also no permanent streams or ponds on the site itself. However, soil disturbance would occur during construction of the new facilities at the 6 acre site to be transferred to the church. Runoff from this activity could occur that could reach area waterways. In addition, soils on the site to be received by the park were assessed using available information from the Natural Resource Conservation Service (NRCS 2006), and it was determined that 100 percent of the site consists of formally designated hydric soils. This implies that there could be wetlands on the site, although the National Wetland Inventory maps indicate that no wetlands are present, except for a very small area in the northeast corner.

The soil maps for the parcel of land to be received by the church indicate that hydric soils are not present, but large areas of standing water observed during the archeological survey by the Southern Archeological Center could mean that portions of the site contain pockets of hydric soils and wetlands. Therefore, soil was retained as an impact topic.

Vegetation – Native Plant Communities: Limited construction at the newly acquired parcel would occur, resulting in negligible effects on vegetation and native plant communities at this location. However, the construction of the new church facilities would result in the elimination of 6 acres of native forest. Construction and operation of facilities at the new church facilities could also lead to the spread of non-native plants in the adjacent park. Therefore, vegetation – native plant communities was retained as an impact topic.

Wildlife: Limited construction at the newly acquired parcel would occur, resulting in negligible effects on wildlife. However, construction of the new church facilities would result in the elimination of 6 acres of native forested habitat. Therefore, wildlife was retained as an impact topic.

Wetlands: National Wetland Inventory maps indicate no wetlands are present on either of the two sites involved in the proposed land exchange. For the 8.7 acre parcel of land to be acquired by the park, site-specific wetland delineations would be conducted as part of a future environmental assessment to confirm whether wetlands are in fact present. Once the site is released from federal ownership, the church would still be subject to federal Clean Water Act regulations governing placement of fill in waters of the United States, including wetlands. Both the National Park Service and the church would be required to meet these same regulations. As a result of the potential for these habitats to be present on both sites, wetlands were retained as an impact topic.

Special Status Species: Numerous species of state and federally listed species are present in the park and in the surrounding area. Based on recent park surveys, no listed species occur on the 6 acre parcel to be used for the new church facilities. However, a

detailed survey of the proposed parcel to be received by the park in the land exchange has not yet been conducted. A site-specific survey for listed species of plants and animals would be conducted on this site as part of an environmental assessment for any future proposed actions by the park. Therefore, special status species was retained as an impact topic.

Archeological resources: A recent survey by the National Park Service showed that no archeological resources of significance on the 6 acre parcel of land to be given to the church were present. However, no similar survey has been conducted for the parcel to be received by the park from the church, this would have to be investigated further. These assessments would take place as part of a future environmental assessment for specific proposed park actions on this site. Therefore, archeological resources were retained as an impact topic.

Cultural landscapes, historic buildings, structures and objects: A recent survey by the National Park Service showed that no historic buildings, structures and objects of on the 6 acre parcel of land to be given to the church. However, no similar survey has been conducted for the parcel to be received by the park from the church, and this parcel contains a building foundation and possibly other cultural resources that need to be investigated further. Both sites may also have effects on cultural landscapes. Assessments of potential effects on cultural landscapes, historic buildings, structures and objects would also be completed as part of a future environmental assessment for specific proposed park actions on this site. Therefore, cultural landscapes, historic buildings, structures and objects were retained as an impact topic.

Socioeconomics: Construction of new, limited facilities on the parcel of land to be acquired by the park would have a negligible beneficial socioeconomic effect on the area surrounding the park and St. Simons Island. The construction of facilities on the site being acquired by Christ Church would have a minor beneficial socioeconomic effect on the area surrounding the park and St. Simons Island. Once the improvements are constructed, the action would have a major beneficial socioeconomic effect on Christ Church and a moderate overall effect on the local area.

Visitor Use and Experience and Viewshed: Construction of new, limited facilities on the parcel of land to be acquired by the park would have a minor beneficial effect on visitor use and experience. The new park site will provide additional areas for visitors to see, plus the potential for additional cultural resources to visit. Elimination of the 6 acre parcel to be received by the church would eliminate the future use of this forested area by visitors. The viewshed of the park in the vicinity of the entrance and the grounds of the park itself may also be affected by construction and operation of new church facilities. Therefore, visitor use and experience / viewshed were retained as an impact topic.

Transportation: Traffic patterns associated with the new church facilities would change and there is the potential for more traffic attracted to the church as a result of the improvements. Therefore, transportation was retained as an impact topic.

Soundscape/Noise: Changes in soundscape and noise levels at the parcel acquired by the park would be negligible since limited facilities would be constructed there.

However, soundscape and noise levels surrounding the proposed church facility would be expected to change due to modified traffic patterns and the potential for more traffic. Therefore, soundscape/noise was retained as an impact topic.

Park Operations: There would be a minor increase in the need for additional park interpretive services or maintenance in the newly acquired parcel. There would be a minor reduction in need for maintenance of the parcel given up by the park for the new church parking lot. Therefore, park operations were retained as an impact topic.

Impact Topics Dismissed From Further Analysis

Certain potential impact topics were dismissed because these resources would not be affected by the alternatives or the potential for impacts under all alternatives would be negligible. These topics are listed below with the reasons they were not addressed.

Water Quality: Negligible effects on water quality are expected at the site to be received by the park since limited facilities would be constructed and operated at this location, and there are apparently no permanent streams or ponds on the site. Best management practices would be employed during construction of the site to control erosion. Effects on water quality would be expected to be negligible as a result.

Effects of construction on water quality at the parcel of land to be received by the church are also expected to be negligible, because there are no permanent streams or ponds on the site, and it is located over 2,000 feet from the unnamed tributary of Dunbar Creek to the east, and over 1,000 feet from the Frederica River to the west. Best management practices would be employed during construction of the site to control erosion. The majority of this 6 acre site would be paved for a parking lot and other church facilities, which would lead to increased stormwater runoff. However, a National Pollutant Discharge Elimination Permit would be required from the State of Georgia to construct and operate the new church facilities. This permit requires implementation of best management practices control stormwater runoff. The overall effects on water quality would therefore be negligible.

As a result of these considerations, water quality was eliminated from further analysis in the environmental assessment.

Floodplains: The entire park and both of the sites involved in the land exchange are located within the 100-year floodplain. On the 8.7 acre parcel of land being received by the National Park Service, construction will be limited to a limited area and could include roads, parking lots and trails. The 6 acre parcel of land being received by the church would be converted to a parking lot and church associated buildings. However, the total area affected by the exchange is a small portion of the several thousand acre area floodplain that includes all of St. Simons Island. Any effects of construction on the two sites involved in the land exchange would therefore have negligible effects on floodplain functions and values. These actions will not induce increased flooding, nor contribute to increased future flood damages. Floodplains were therefore eliminated from further analysis in the environmental assessment.

Air Quality: The 1963 Clean Air Act, as amended (42 United States Code 7401 et seq.), requires federal land managers to protect air quality, while the 2001 National Park

Service Management Policies address the need to analyze air quality during park planning. Glynn County is in attainment of air quality standards and only industrial developments that have emissions are required to be permitted with their agency with regard to air quality. Parking lots do not require a permit. Air quality was therefore eliminated from further analysis in the environmental assessment.

Prime or Unique Farmlands: An August 11, 1980 memorandum from the Council on Environmental Quality directed that federal agencies must assess the effects of their actions on farmland soils classified by the Natural Resource Conservation Service as prime or unique (CEQ 1980). Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oil seed crops and that is available for these uses (i.e., it cannot be areas of water, urban, or developed land); unique farmland is land that is used for the production of high value food crops, such as fruits, vegetables and nuts. In general, prime and unique farmlands have the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops. The Natural Resource Conservation Service was contacted and they conduct a review of the available information on prime or unique farmlands for the two sites. It was concluded that prime or unique farmlands were not present on either site (NRCS 2006).

Natural Lightscape (Night Sky): Only limited facilities would be constructed on the site to be acquired by the park, and would have a negligible effect on the natural lightscape. Since the park is closed after dark, construction of a lighted parking lot adjacent to the park would be expected to affect visitors in the park. For these reasons, lightscape was dismissed as an impact topic.

Ecologically Critical Areas, Wilderness, Wild and Scenic Rivers, or Other Unique Natural Resources: No congressionally designated natural resources, such as ecologically critical areas, Wilderness, Wild and Scenic Rivers, or other unique natural resources are located within the project site. Therefore, this impact topic was dismissed.

Public Health and Safety: The project would involve construction and operation of a new parking lot at the new church parking lot site, and limited construction and operation of new visitor facilities at the site to be acquired by the park. Both of these two actions would have negligible effects on public health and safety. Therefore, this impact topic was dismissed.

Sacred Sites: There are no sacred sites, as defined by Executive Order 13007 on either of the two sites, or in the immediate area of either site. Therefore, this impact topic was dismissed.

PROPOSED ACTION AND ALTERNATIVES

INTRODUCTION

The purpose of this general environmental assessment is to select and recommend implementation of a preferred alternative for completing the land exchange. This environmental assessment analyzes the potential effects of two action alternatives and the no-action alternative on the environment, and has been prepared in accordance with the *National Environmental Policy Act of 1969* and regulations of the Council on Environmental Quality (40 Code of Federal Regulations 1508.9).

The 2002 General Management Plan (NPS 2002) included the following alternatives:

Alternative A – Telling the Story with Archeology

Alternative B – Life at Fort Frederica (Preferred Alternative)

Alternative C – The Whole Story

Alternative D – No Action Alternative

Two new alternatives addressing the proposed land exchange are included in this general management amendment / environmental assessment:

Alternative E – No Action Alternative

Alternative F - a new alternative developed for the general management plan environmental assessment

Alternative G – a new alternative developed for the general management plan environmental assessment

The following sections describe each of the new alternatives in detail. Figures 3, 4 and 5 illustrate the alternatives.

ALTERNATIVE E - NO ACTION ALTERNATIVE

The No-Action Alternative (Figure 3) is defined as continuing present management practices in the park. Under the No-Action Alternative, the proposed land exchange would not take place.

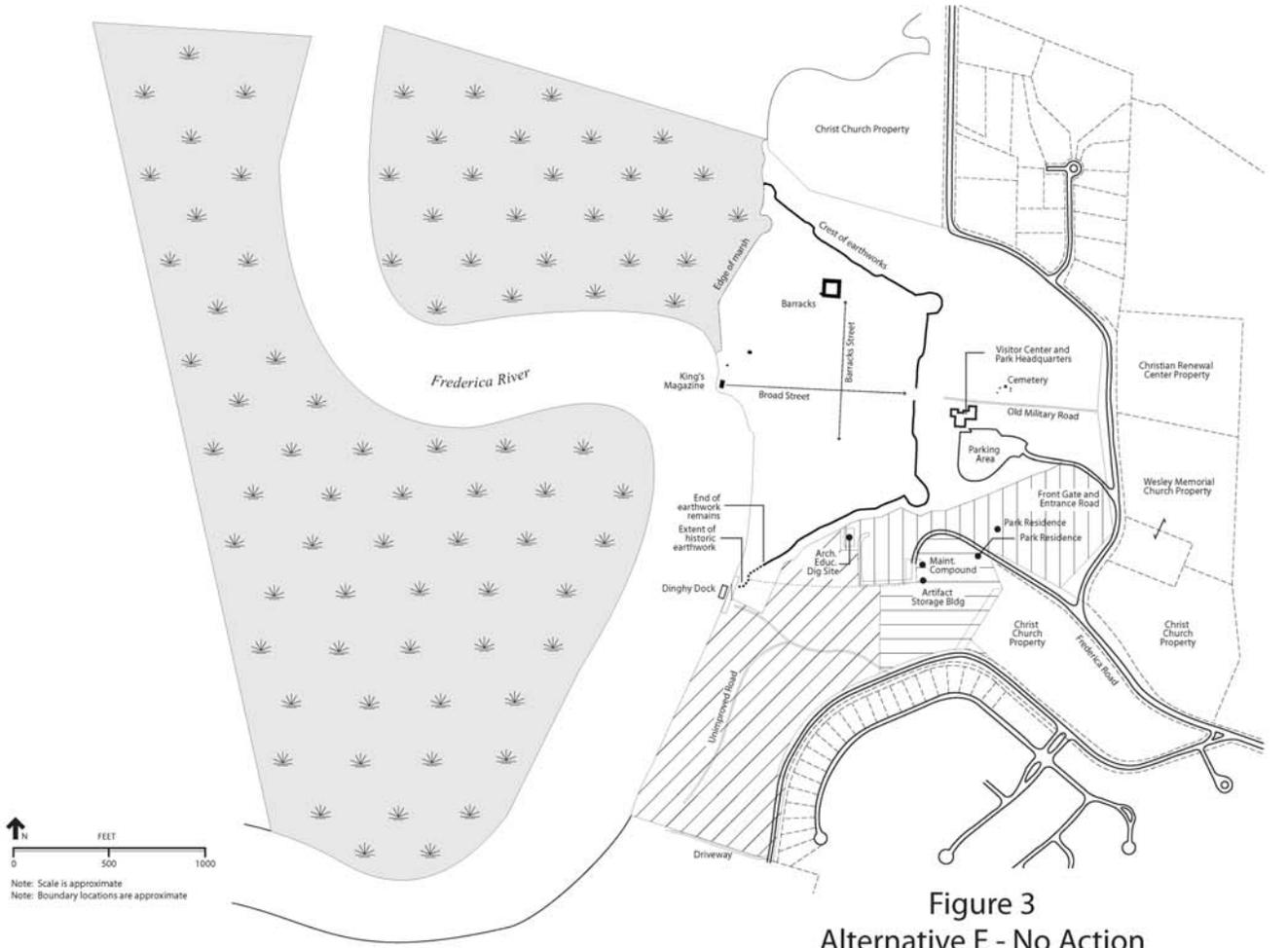
Under the No Action Alternative, the National Park Service would not acquire a parcel of land from Christ Church, nor would this parcel be managed by the park. Also, no new projects would be constructed and operated within the boundaries of the park. The No Action Alternative provides a basis for comparing the management direction and environmental consequences of the proposed land exchange.

ACTION ALTERNATIVES

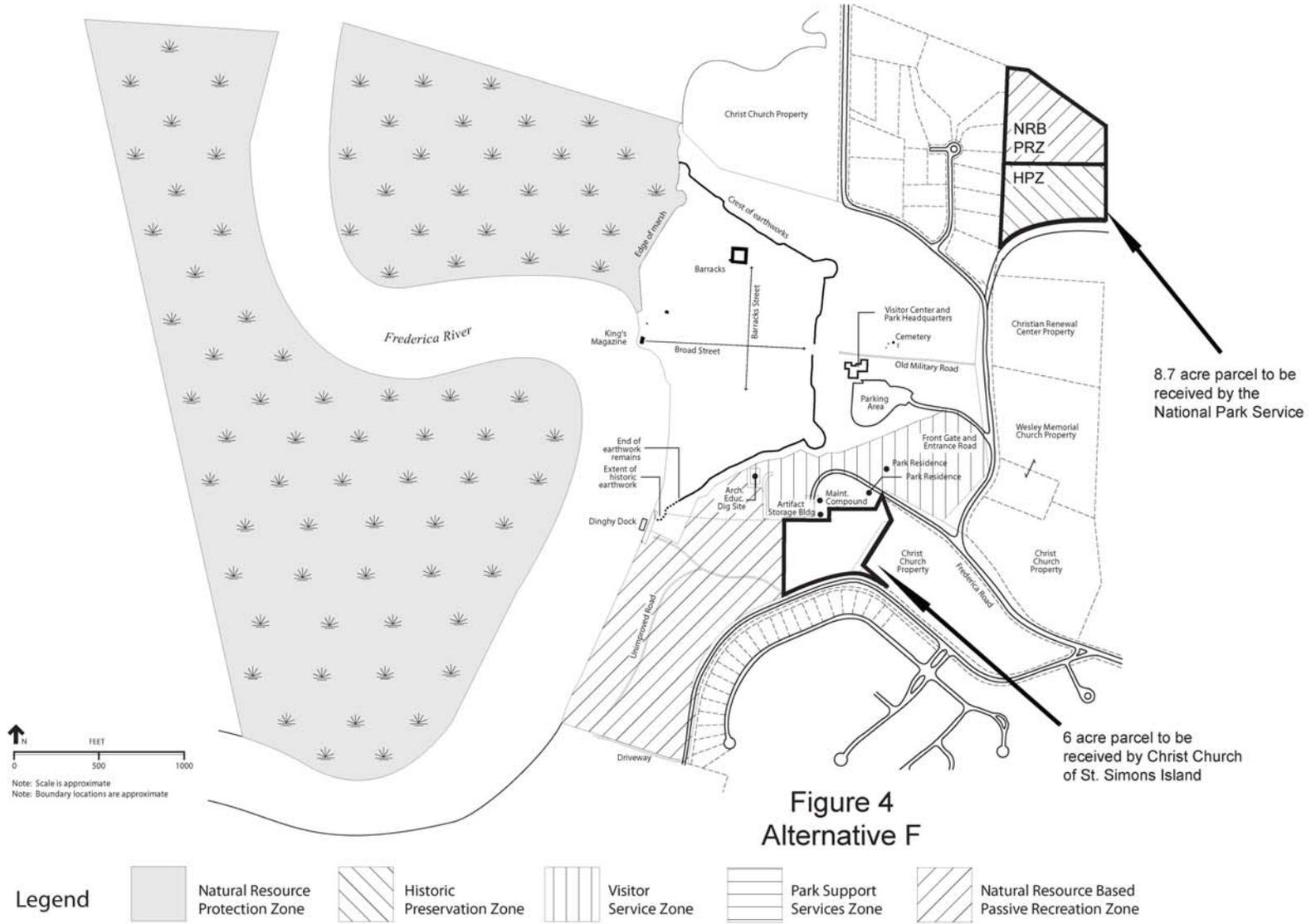
The action alternatives were identified as alternatives A, B, and C in the 2002 *General Management Plan*, and the no-action alternative was identified as Alternative D. The action alternatives A, B and C are not discussed further here. To maintain the sequence

Fort Frederica National Monument

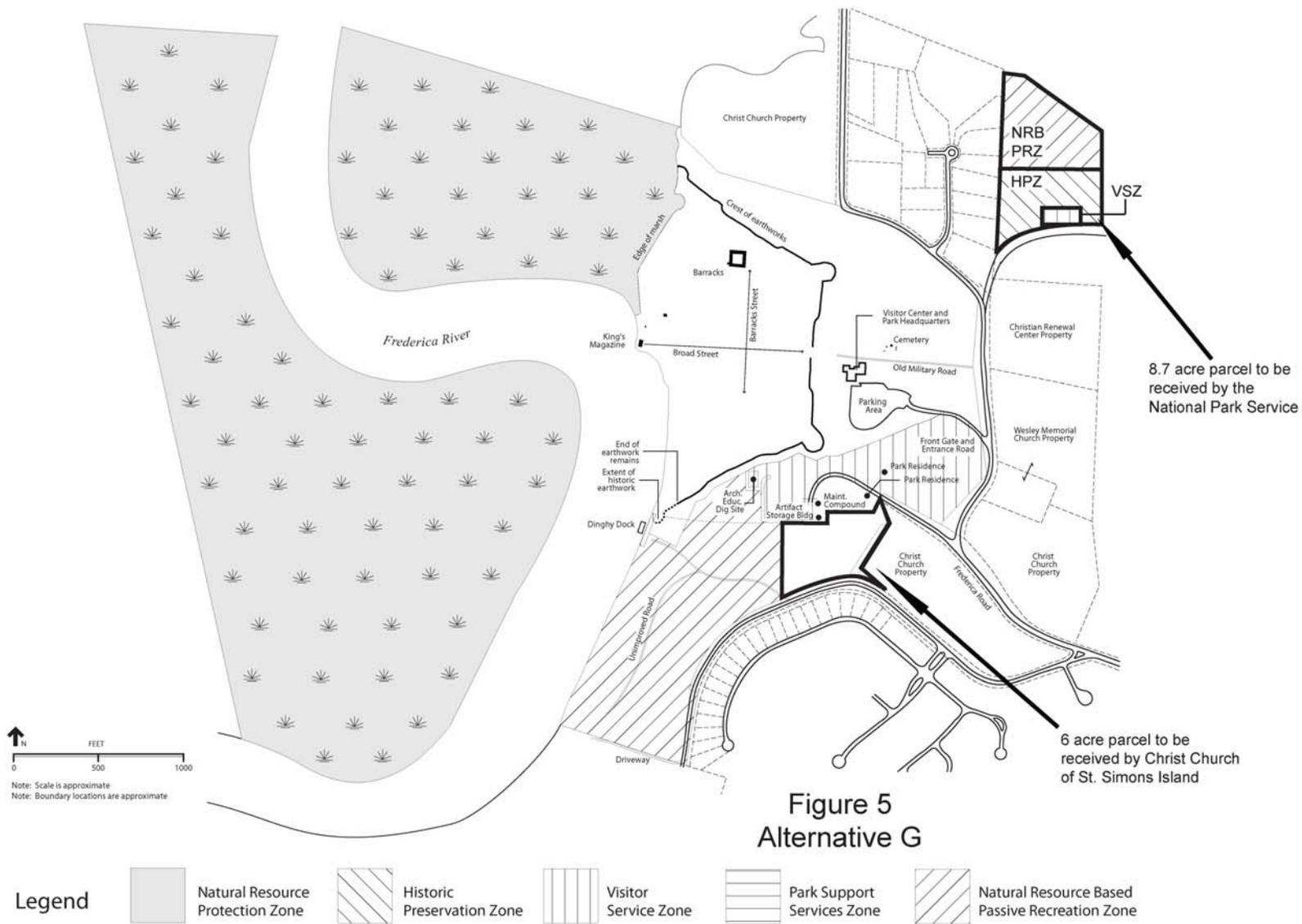
General Management Plan Amendment



Fort Frederica National Monument General Management Plan Amendment



Fort Frederica National Monument General Management Plan Amendment



with the previous general management plan, two action alternatives, Alternatives F (Figure 4) and G (Figure 5), are addressed in this environmental assessment. The new action alternatives, F and G, were developed by the National Park Service Planning Team in a workshop held in December, 2005. Input obtained from the church, as well as information contained in the 2002 *General Management Plan* (NPS 2002) was used in the creation of the two land exchange alternatives.

The alternatives were created by application of three zones that were mapped in different ways within the 8.7 acre parcel of land being received by the park. The parcel of land being received by the church would be the same under Alternatives F and G. The prescribed uses for each of the three zones being applied to the parcel being received by the park are identical to those used in the 2002 *General Management Plan* (NPS 2002). The three zones defined as follows:

Historic Preservation Zone

Desired resource conditions: The structural remains, cultural landscapes, and archeological resources would be protected as much as possible from further deterioration by natural processes or human activity. The landscape would be managed to promote cultural resource protection and interpretive objectives.

Desired visitor experience: Visitors would perceive and understand the nature of Fort Frederica as a colonial urban and military settlement. Access to the historic preservation zone(s) would typically be from the visitor service zone. Once within this zone, the visitor would be effectively insulated from obtrusive sights and sounds. Low to moderate level of exertion may occur in these areas. Visitors could expect up to a 10-minute walk to find shelter or water.

Kinds and levels of management: A moderate to intensive level of management would be required to prevent further deterioration of cultural resources. Management activities would include mowing of the areas around the existing exposed foundations as well as the earthworks, routine and appropriate treatment of tabby walls and historic brickwork, other vegetative control activities such as pruning and edging, and monitoring of the historic structures. Wayside exhibits for orientation and education would be common in this zone. Placement of new signs and exhibits, maintenance, repair, and replacement of existing exhibits, and other interpretive activities would occur in this zone to achieve interpretive objectives. Some active archeology may occur here.

Kinds and levels of visitor use: Typical visitor activities would include viewing the foundations and remnants of colonial Frederica, viewing wayside exhibits, photography, enjoying the natural scene, and participating in interpretive programs. Encounters with other visitors would range from infrequent to very frequent depending on time of year, time of day, and the weather.

Kinds and levels of development: Development in the historic zone could include wayside exhibits, benches, structures or other features designed to enhance the visitor's understanding of the area, and footpaths. These items

would be of such a character as to promote both resource protection and visitor experience objectives.

Visitor Service Zone

Desired resource conditions: This zone type would consist of necessary visitor facilities placed as unobtrusively as possible in an appropriate setting. Minimizing the effects of these facilities on cultural resources of the National Monument would be a high priority.

Desired visitor experience: In this zone, visitors would enter the National Monument and receive their initial orientation to its physical resources and interpretive themes. The visitor would normally encounter other visitors as well as park staff in this zone. The facilities would be easily accessible and would provide shelter and relief from extremes of weather. The visitor would acquire an appreciation of the colonial and other historical periods associated with the site as well as its geography and general layout. This would occur by means of audiovisual presentations, interpretive programs, brochures, and exhibits. The visitor would then anticipate touring the site.

Kinds and levels of management: Management activities would include regular maintenance of both the structural and landscape elements in the zone. It would also include periodic maintenance and rotation of exhibits and artifacts as well as formal, informal, and ad hoc interpretation. Ongoing management activities to ensure visitor safety and comfort would also take place.

Kinds and levels of visitor use: Visitor activities would include viewing exhibits and audiovisual presentations, participating in interpretive programs, and photography. Visitors could expect to be in close proximity to other visitors and park staff. Levels of visitor use would be higher in this zone than in other zones of the National Monument.

Kinds and levels of development: Visitor center/museum and bookstore could be located in this area as well as archeological labs and support facilities, classrooms, restrooms, an amphitheater and vending machines. The visitor service zone would also include means of access into the National Monument from public roads and a parking area for personal vehicles and tour buses. Both the location and the use of landscape materials would minimize the visual effect of this zone on the historic scene.

Natural Resource Based Passive Recreation Zone

Desired resource conditions: This zone type would consist of vegetated communities exhibiting natural succession. The desired resource condition would be predominantly natural and management activities designed to encourage and support that condition would govern in this zone type.

Desired visitor experience: Visitors would observe and experience a fairly natural environment with minimal development. They would encounter hot, humid conditions, insects, wet areas, and possibly snakes for much of the year.

Comfort stations and water fountains would be up to a 20-minute walk away. A moderate to high level of exertion may occur in these areas.

Kinds and levels of management: The goals of this zone type are primarily to provide natural resource based recreational opportunities and to provide visual screening of the historical and archeological areas from sights and sounds originating outside the National Monument boundary and from park maintenance and administrative areas. A low to medium level of management activity would be necessary to maintain this function. Such activity could include removal of exotic species, mowing, trimming, replanting native species, and pruning at the boundaries of the zone. Management could restrict the kinds of recreational activities that occur in this area.

Kinds and levels of visitor use: Typical visitor activities in this zone would include hiking, picnicking, and nature photography. Levels of visitor use would vary depending on the season, time of day, insect populations, and weather conditions.

Kinds and levels of development: Primitive (natural surface) trails would be possible in these zones, but visitors would not find picnic tables or shelters, comfort stations, or other major facilities.

Description of the Action Alternatives

Two action alternatives were developed by mapping the three zones described above. Alternatives F and G are described below:

Alternative G: Under Alternative G, the National Park Service would receive an 8.7 acre parcel of land located on the northeast corner of the park as shown in Figure 2. The northern half of this site would be assigned as a Natural Resource Based Passive Recreation Zone. The zoning of this part of the site would be identical to Alternative F. The difference between Alternative F and G would be in the way the southern portion of this parcel is zoned. Under Alternative G, the majority of the southern half of the parcel would be designated as a Historic Preservation Zone, and a small area along the southern edge of the parcel would be designated as a Visitor Service Zone. This would allow more active use of the area for visitors to observe potential cultural resources, allow for interpretive activities, and allow for construction of more hardened park facilities such as parking lots, restrooms, and sidewalks. Development of these types of facilities would, however, depend on the results of cultural resource surveys to be completed in the future.

Under this alternative, the church would receive the 6 acre parcel of land and use it to construct and operate facilities such as a church sanctuary, classroom buildings, and an approximately 225 car parking lot. The construction and operation of new church facilities on this parcel under Alternative F would be identical to those under Alternative E.

Alternative F: Under Alternative F, the National Park Service would receive an 8.7 acre parcel of land located near the northeast corner of the park as shown in

Figure 2. The northern half of the 8.7 acre site would be designated as a Natural Resource Based Passive Recreation Zone. The southern half of the parcel would be designated as a Historic Preservation Zone, in recognition of the potential for this portion of the site to harbor cultural resources, including, potentially, the Oglethorpe house site. The concept underlying the zoning for this alternative would be to focus visitor use on more passive uses such as hiking and interpretive tours/programs, and would allow only limited “hardened” park facilities.

Under this alternative, the church would receive the 6 acre parcel, and construct and operate facilities such as a church sanctuary, classroom buildings and a parking lot for approximately 225 cars (Figure 2). Based on available conceptual designs, it is assumed that the entire 6 acre site would be required for construction and operation of the new church facilities.

THE PREFERRED ALTERNATIVE (ALTERNATIVE G)

The preferred alternative is the course of action preferred by the National Park Service. Both action alternatives would allow the land exchange to take place. However, the National Park Service would prefer to implement Alternative G because it would allow for enhanced visitor experience through creation of the Visitor’s Services Zone with only a slightly larger area of new land disturbance on the parcel to be received by the park.

Mitigation Measures for the Preferred Alternative

Because the land being transferred to the church would be removed from federal ownership, mitigation measures are not described for this parcel, except in situations where the proposed church facilities could potentially affect the park. The church would, however, be required to meet all applicable federal, state and local laws and regulations, including those actions necessary to mitigate potentially adverse effects of construction and operation of planned facilities.

This section describes the mitigation measures that would be required of the National Park Service for construction and operation of any new activities on the 8.7 acre site being received from the church. These practices and measures would be incorporated into the project construction documents and plans to reduce the extent, intensity and duration of potentially adverse effects. In addition, measures to mitigate potentially adverse effects of the proposed development that would occur on the church site that might affect the park are also discussed (for example, effects on the viewshed from construction of the new church facilities). In this case, mitigation measures that can be taken on park property are considered.

Mitigation measures undertaken during project implementation would include, but would not be limited to those listed below for impact topics retained in the environmental assessment. The impact analysis in the “Environmental Consequences” section was performed assuming that these best management practices and mitigation measures were implemented as part of all action alternatives.

Practices to Minimize Effects on Cultural Resources

Surveys for cultural resources would first be completed, and if such resources were found, the following mitigation measures would be taken:

Mitigation measures for the cultural landscape would include minimal disruption and disturbance of local vegetation, dust abatement, and replanting and re-landscaping any areas affected by construction activities.

The primary mitigation measure to reduce adverse effects on archeological sites would be avoidance. Avoidance may be accomplished through redesign of the proposed construction, utility corridors, construction staging areas and borrow pit excavations. Avoidance preserves the integrity of archeological sites and protects their research potential (i.e., National Register of Historic Places eligibility). Avoidance also avoids costs and potential construction delays associated with data recovery. Traditionally, data recovery of archeological sites through professional techniques such as surface collection, mapping, photography, subsurface excavation, technical report preparation and dissemination, has been the standard mitigation measure. However, data recovery is labor intensive (i.e., costly) but may be necessary if National Register of Historic Places-eligible sites cannot be avoided. Data recovery of archeological information is now considered, in and of itself, an adverse effect under the revised Section 106 regulations (36CFR800.5(a)(2)(i)). Because the project area has not been systematically surveyed for archeological resources and because intact prehistoric and historic archeological sites may occur in undisturbed areas proposed for infrastructure corridors, a Phase I archeological survey is required prior to construction. This would be conducted as part of a future site-specific environmental assessment. The Phase I survey would consist of a systematic series of shovel probes to identify archeological sites and to determine their extent and integrity. If intact archeological sites are identified, Phase II cultural resources studies should be designed in consultation with the Georgia State Historic Preservation Office and implemented to determine the National Register of Historic Places eligibility of the cultural resources. If National Register of Historic Places-eligible resources occur and cannot be avoided through project redesign, Phase III data recovery investigations should be developed in consultation with the Georgia State Historic Preservation Office and implemented prior to construction.

Practices to Minimize Effects on Soils

Best management practices would be implemented during construction of any new facilities to prevent soil erosion during construction. Erosion prevention practices typically include use of silt screening around any disturbed areas, mulching exposed slopes, placing staked hay bales in drainages, and sprinkling water on exposed soil to prevent wind erosion. Upon completion of construction projects, all disturbed soils would be sodded or seeded with approved vegetation to prevent erosion. Exotic species would also be controlled during planting.

Practices to Minimize Effects on Vegetation –Native Plant Communities

In the design of any new park facilities, the National Park Service would first conduct a detailed vegetation survey as part of a site-specific environmental assessment. This survey would include a map of the types of natural vegetation on the site, as well as an estimate of the extent of invasion by non-native plants. This information would then be used during the planning phase of any construction project as a means of avoiding or minimizing potentially adverse effects on native vegetation.

Practices to Minimize Effects on Wildlife

In the design of any new park facilities, the National Park Service would first conduct a detailed wildlife survey as part of a site-specific environmental assessment. This survey would include a map of the types of natural vegetation and wildlife habitats on the site. This information would then be used during the planning phase of any construction project as a means of avoiding or minimizing potentially adverse effects on wildlife.

Practices to Minimize Effects on Wetlands

Based on the available National Wetland Inventory maps, no wetlands occur on the site. However, a formal delineation would be conducted as part of a future site-specific environmental assessment in order to identify the type, extent, functions and values of any wetlands on the site. If wetlands are identified, Section 404 Clean Water Act regulations require that a sequence of avoidance, minimization and compensation be followed to mitigate potentially adverse effects. The National Park Service would adhere to these requirements.

Practices to Minimize Effects on Special Status Species

The site does not appear to harbor any state- or federally-listed species of plants or animals, based on a review of available databases. However, prior to implementation of any construction projects, a site-specific survey for protected species would be conducted as part of a future site-specific environmental assessment. If such species are in fact identified, consultation would be undertaken with the review agencies to avoid or minimize potentially adverse effects.

Practices to Minimize Effects on Socioeconomics

Construction of the facilities on the new church site and the new park site would benefit the construction industry in the area. In addition, Christ Church would benefit from the land exchange and improvements by increasing their capacity for worship services. No mitigation is necessary.

Practices to Minimize Effects on Visitor Use and Experience

Construction of the proposed church facilities using the 6 acre parcel of land that is currently located inside the park would reduce the total acreage of park available to visitors. However, the park is gaining 8.7 acres to offset this potential effect. The new parcel of land also contains cultural resources which could be used to expand visitor use by providing additional interpretative areas and resources. Additional studies of the new

parcel will be conducted to determine whether significant cultural resources exist, and if such facilities and programs are appropriate.

However, the parcel being received by the church receives a low level of use by present-day visitors. Clearing of the parcel for a parking lot could however, have a visual effect on visitors to the park. The park could mitigate these potentially adverse effects by planting a screen of native vegetation along the edge of the park where the church facilities would be constructed.

Practices to Minimize Effects on Transportation, Local and Regional

The construction activity at the 6 acre parcel would create additional vehicular traffic in the area during park operating hours. In addition, the development at the 6 acre parcel would also increase vehicular traffic in the future during Sunday mornings when the park is in operation. Necessary transportation improvements (if required) would be documented and discussed with Christ Church and local officials for the required implementation schedule.

Practices to Minimize Effects on Soundscape and Noise

The contractor that constructs facilities on the 8.7 acre parcel received by the park would comply with best management practices to reduce the effects of construction noise on the surrounding area. Heavy equipment and truck engines would be properly muffled and would be turned off when not in use.

Practices to Minimize Effects on Park Operations

Because the 8.7 acre parcel to be received by the park is not contiguous, maintenance, patrol, and other park operations may become less efficient. Park operations will be reviewed to determine effective methodologies for maximizing the efficiencies of all operations.

ALTERNATIVES CONSIDERED BUT NOT FURTHER ASSESSED

Alternatives F and G were developed during an internal workshop held by the National Park Service. Due to the limited nature of this land exchange, no other alternatives were considered at the workshop.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with Director's Order 12, the National Park Service is required to identify the "environmentally preferred alternative" in all environmental documents, including environmental assessments. The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act, which is guided by the Council on Environmental Quality. The Council on Environmental Quality provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act, which considers:

Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;

Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;

Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;

Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;

Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources" (National Environmental Policy Act, 1969)."

Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (Federal Register, 1981).

Alternatives F and G both meet these goals more effectively than Alternative E, the No Action Alternative. Each of the action alternatives would achieve the objectives of the land exchange. In addition, each has environmental advantages compared to the other.

The three alternatives vary in the resources protected and the amount of protection given to those resources. The No Action alternative would not directly expose resources to degradation or development. However, both action alternatives would enable the National Park Service to better protect potentially significant cultural resources, at the cost of coastal barrier island habitats which are diminishing.

"Safe, healthful, . . . and esthetically . . . pleasing surroundings" would better be attained by Alternative F, since a slightly smaller area of land would be physically disturbed on the parcel of land to be received by the park. However, conversion of the 6 acres of park property to church facilities would not contribute to aesthetics of the area.

The No Action alternative avoids development and degradation of natural resources. Both action alternatives would allow the 8.7-acre parcel received by the park to be used for a range of beneficial uses. Loss of natural resources caused by development of the 6 acre site to be received by the church could potentially be offset if the Oglethorpe home site or other cultural resources indeed occur on the parcel to receive long-term NPS protection.

The action alternatives provide the greatest possibility to provide long-term protection of cultural resources by adding potentially significant resources to NPS protection.

Of the two action alternatives, Alternative F is environmentally preferred by a close margin, since it would result in a slightly smaller area of disturbed land.

ALTERNATIVES COMPARISON TABLE

Each of the alternatives was evaluated to determine whether they met the objectives that the National Park Service set for the proposed land exchange. Table 2 describes how the alternative satisfies the particular objective.

Summary of Environmental Consequences/Impact Comparison Matrix

The terms used to define the magnitude or intensity of the environmental effects are described in Table 3.

TABLE 2. OBJECTIVES, ISSUES, AND CONCERNS, AND THE ABILITY OF THE ALTERNATIVES TO MEET THEM.

Objective, Issue, or Concern	Alternative E, the No Action Alternative	Alternative G, the Preferred Alternative	Alternative F
<p>Maintain integrity of the Fort Frederica National Historic Site and retain compatibility with historic park features.</p>	<p>The land exchange would not take place under this alternative. The park would continue to meet this objective on the existing property.</p>	<p>The parcel of land to be received by the National Park Service would be inventoried and the potential existence of the Oglethorpe house and/or other cultural resources would be confirmed. Alternative G would provide more hardened physical structures and increased numbers of interpretive programs to achieve this objective as compared to alternative F.</p>	<p>The parcel of land to be received by the National Park Service would be inventoried and the potential existence of the Oglethorpe house and/or other cultural resources would be confirmed. Alternative F would provide fewer and less hardened physical structures and fewer interpretive programs to achieve this objective as compared to alternative G.</p>
<p>Identify, preserve and interpret any new cultural resource sites on the 8.7 parcel of land to be received by the National park Service. This would require conducting cultural and natural resource assessments and incorporation of the results into the overall park programs and plans.</p>	<p>The land exchange would not take place under this alternative. This goal would not be met.</p>	<p>The parcel of land to be received by the National Park Service would be inventoried and any cultural and natural resources would be identified. The information would be incorporated into other plans being implemented in the park. More emphasis would be placed on cultural resource interpretation under alternative G, as compared with Alternative F.</p>	<p>The parcel of land to be received by the National Park Service would be inventoried and any cultural and natural resources would be identified. The information would be incorporated into other plans being implemented in the park. Less emphasis would be placed on cultural resource interpretation under alternative F, as compared with Alternative G.</p>

TABLE 2. OBJECTIVES, ISSUES, AND CONCERNS, AND THE ABILITY OF THE ALTERNATIVES TO MEET THEM.

Objective, Issue, or Concern	Alternative E, the No Action Alternative	Alternative G, the Preferred Alternative	Alternative F
Minimize disturbance to previously undisturbed areas (result in no net loss of landscape and no increase in paved area) and protect or enhance park resources.	Alternative A would meet this objective because there is no construction or disturbance to soils and vegetation.	Alternative G would involve creation of a Visitor Service Zone in the lower portion of the parcel of land to be acquired by the National park Service. This zone would used to house more hardened types of facilities geared towards interpretation of any cultural resources that might be identified on the site.	Alternative G would not involve creation of a Visitor Service Zone in the lower portion of the parcel of land to be acquired by the National Park Service. This area would remain relatively undeveloped. A less active interpretation program for of any cultural resources that might be identified on the site would be provided under Alternative F.
Provide interpretative experiences and programs for visitors and area schools for cultural and natural resources	The existing active educational program for area schools and other groups would be continued.	The existing active educational program for area schools and other groups would be continued, but would be expanded to include any cultural resources identified on the parcel of land being received by the National Park Service. The level of educational programs would be greater that those provided under alternative F.	The existing active educational program for area schools and other groups would be continued, but would be expanded to include any cultural resources identified on the parcel of land being received by the National Park Service. The level of educational programs would be less that those provided under alternative G.

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
Historic and cultural resources	<p>Effects of the No Action Alternative on archeological resources within the park would be negligible, but over the long term, failure to acquire land containing sites important in the park’s mission and interpretive story would be moderately adverse. Cumulative effects under this alternative would be long-term and moderately adverse because the numbers and extent of sites adversely affected in the region would far outweigh the benefits of park programs on resources within park boundaries.</p> <p>There would be no impairment of archeological resources or values as a result of park actions under this alternative.</p> <p>A continuation of existing</p>	<p>With prior archeological investigations and establishment of zones, implementation of Alternative G would have negligible to minor adverse effects on archeological resources from development and visitor use; and long-term moderate to major beneficial effects from preserving, protecting, and interpreting the sites.</p> <p>There would be no impairment of archeological resources or values as a result of park actions under this alternative.</p> <p>Implementation of Alternative G would have a negligible effect on the park’s historic landscape from transfer of the 6-acre parcel to the church (the parcel is adjacent to developed areas of the park).</p> <p>Minor to moderate benefits</p>	<p>Church-related construction on the 6-acre parcel acquired from the National Park Service would have a negligible effect on archeological resources (none were identified during recent surveys).</p> <p>Under Alternative F, results of acquisition, zoning and management of the 8.7-acre parcel by the National Park Service would enable the identification and preservation of cultural resources (primarily archeological resources) important to the park’s mission and interpretative programs, and would provide future protection of these resources from development or inappropriate visitor uses. However, the modest amount of development of this</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
	<p>management activities would result in moderate benefits to historic structures, buildings, objects, and landscapes located within the park.</p> <p>Future changes by others in the land proposed for addition would have an unknown effect on that landscape and any extant structures. However, it is likely that changes in the 8.7-acre church property landscape would have very little effect (negligible effect) on the park’s cultural landscape because of the spatial separation between the two properties.</p> <p>Cumulative effects would be long-term and moderately adverse because the benefits of preserving the present park landscape would be very small when compared with the loss of historic landscapes in the area to</p>	<p>would accrue from addition of the 8.7-acre parcel because part of the original historic landscape would be returned to the park. Adverse effects of adding new visitor facilities in the Visitor Service Zone would be minor because structures would be designed to blend unobtrusively into the surrounding landscape.</p> <p>Cumulative effects under Alternative G would be the same as described for Alternative F (long-term, and moderately adverse) because the size of the areas outside that park that are being affected by development would outweigh the preservation and restoration of a few acres within the park.</p> <p>There would be no impairment of cultural landscapes, or historic buildings, structures, objects, and, and values as a result of park</p>	<p>parcel for visitor use could mean that some visitors might not be aware of the area’s importance to the park’s interpretive story. Implementation of Alternative F would have moderate to major long-term benefits on archeological resources in the 8.7-acre parcel.</p> <p>Because preservation of sites within the park would contribute only a small fraction of preservation efforts to the overall regional effects, cumulative effects on archeological resources would be adverse, long-term, and moderate.</p> <p>There would be no impairment of archeological resources or values as a result of park actions under this alternative.</p> <p>Transfer of the 6-acre parcel to the church would have a negligible adverse effect on the</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
	<p>continued development.</p> <p>There would be no impairment of cultural landscapes, or historic buildings, structures, and objects or values as a result of park actions under this alternative.</p>	<p>actions under this alternative.</p>	<p>park’s historic landscape. Acquisition of the 8.7-acre parcel would have long-term moderate benefits by restoring a piece of the original historic landscape. Cumulative effects would be long-term and moderately adverse because the small amount of land preserved in the added parcel would be overshadowed by extensive changes to landscapes in the surrounding area from development.</p> <p>There would be no impairment of cultural landscapes, or historic buildings, structures, and objects and values as a result of park actions under this alternative.</p>
Soils	<p>The No Action Alternative would not involve any construction on either site and would therefore not result in any direct adverse effects on soils. The No Action</p>	<p>Under Alternative G, clearing of the 6 acre parcel of land to be received by the church would have minor, local, long- and short-term, direct, adverse effects</p>	<p>Under Alternative F, the entire 6 acre parcel of land to be received by the church would be cleared. This would have minor, local, short-term, direct, adverse effects</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
	<p>Alternative would not cause growth to be induced in the surrounding area and would therefore not result in any indirect effects on soils. Since no construction of any type would occur on the site under the No Action Alternative, this alternative would have no adverse cumulative effects on soils.</p>	<p>on soils. Alternative F would have identical effects on soils on the parcel of land to be received by the church.</p> <p>Under Alternative G, more hardened facilities would be appropriate in the Visitor Services Zone as compared with Alternative F. These limited activities would have minor, local, short-term, direct, adverse effects on soils.</p> <p>Construction and operation activities under Alternative G would not result in induced growth in the surrounding area, and would therefore have no adverse indirect effects on soils.</p> <p>Construction activities on both parcels of land would result in a negligible cumulative effect on soils in the surrounding area, since this would represent a very small portion of the total amount</p>	<p>on soils. Under Alternative F the extent of soil disturbance would be less than that produced under Alternative G because fewer hardened facilities would be constructed. These activities would have negligible, local, short-term direct adverse effects on soils.</p> <p>Construction activities on both parcels of land would have a negligible cumulative effect on soils in the surrounding area, since this would represent a very small portion of the total amount of development going on in the area.</p> <p>The land exchange would not result in impairment of any soil resources on the two sites or in the surrounding area.</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
		of land being converted by past, present and reasonably foreseeable future projects. The land exchange would not result in impairment of any soil resources on the two sites or in the surrounding area.	
Vegetation –Native Plant Communities	<p>Because no construction would occur under the No Action Alternative, this alternative would have no direct, indirect or cumulative adverse effects on vegetation.</p> <p>The land exchange would not result in impairment of any vegetation resources on the two sites or in the surrounding area.</p>	<p>The exchange of the two parcels would result in loss of 6 acres of forested land. The overall effect, however, is still estimated to result in a moderate local, long-term, direct effect on vegetation. The parcel to be received by the park is also characterized by hydric soils, and it is possible that the site is a forested or a scrub-shrub wetland. A limited amount of vegetation clearing would be conducted at the site being received by the park, which would have minor, local, long-term, direct, adverse effects on</p>	<p>For the parcel of land being transferred to the church, the effects of Alternative F on vegetation would be the same as those of Alternative G. Alternative F would also have a moderate local, long-term, direct effects on vegetation.</p> <p>In the parcel of land to be received by the park, a slightly smaller area of vegetation would be cleared in the Visitor’s Services Zone, as compared to Alternative G. This alternative would have negligible, local, short-term, direct, adverse direct effects on</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
		<p>vegetation.</p> <p>Construction activities on both parcels of land would result in a negligible long-term cumulative effect on vegetation in the surrounding area.</p> <p>Alternative G would not result in impairment of any vegetation resources on the two sites or in the surrounding area.</p>	<p>vegetation.</p> <p>Construction activities on both parcels of land would result in a negligible cumulative effect on vegetation in the surrounding area, since this would represent a very small portion of the total amount of development going on in the area.</p> <p>Alternative F would not result in impairment of any vegetation resources on the two sites or in the surrounding area.</p>
Wildlife	<p>Under the No Action Alternative, the land exchange would not take place and the wildlife habitats on each of the two sites would remain in their present state. The No Action Alternative would therefore have no adverse, direct effects on wildlife. The No Action Alternative would not cause</p>	<p>The effects of Alternative G on wildlife are directly correlated with the effects of the clearing of forested habitat. Clearing of the parcel to be received by the church would result in a net increase of 2.2% in forested wildlife habitat within the park. The overall effect is estimated to</p>	<p>The effects of Alternative G on wildlife are directly correlated with the effects of clearing of forested habitat. Clearing of the parcel to be received by the church would result in a net increase of 0.9% in forested wildlife habitat within the park. The overall effect is estimated to</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
	<p>growth to be induced in the surrounding area and would therefore not result in any indirect effects on wildlife. Construction activities on both parcels of land would result in a negligible cumulative effect on wildlife in the surrounding area</p> <p>The land exchange would not result in impairment of any wildlife resources on the two sites or in the surrounding area.</p>	<p>result in a moderate local, long-term, direct effect on wildlife.</p> <p>Because more hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative F, more clearing would occur under this alternative as compared with Alternative F. These activities would have minor, local, long-term, direct, adverse effects on wildlife.</p> <p>Construction activities on both parcels of land would result in a negligible cumulative effect on vegetation in the surrounding area.</p> <p>The land exchange would not result in impairment of any vegetation resources on the two sites or in the surrounding area.</p>	<p>result in a moderate local, long-term, direct effect on wildlife.</p> <p>Because fewer hardened facilities would be constructed as compared with Alternative G, less clearing would occur under this alternative as compared with Alternative G. These activities would have negligible, local, long-term, direct, adverse effects on wildlife.</p> <p>Construction and operation under Alternative F would have no adverse indirect or cumulative effects on wildlife.</p> <p>The land exchange would not result in impairment of any wildlife resources on the two sites or in the surrounding area.</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
Wetlands	<p>No construction would occur on either site under the No Action Alternative. The No Action Alternative would therefore have no direct adverse effects on wetlands.</p> <p>The No Action Alternative would not result in impairment of any wetland resources on the two sites or in the surrounding area.</p>	<p>The parcel of land to be received by the park is characterized by 100% hydric soils, indicating the potential for wetlands to be present throughout the site. The parcel of land to be received by the church is not characterized by hydric soils, but is known to be occupied by extensive areas of standing water. This site could also harbor wetlands. Because wetlands have not been delineated on either site, however, it is not possible to provide an accurate estimate of the potential direct effects of Alternative G on wetlands at the present time. If wetlands are present, both the church and the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill.</p>	<p>The parcel of land to be received by the park is characterized by 100% hydric soils, indicating the potential for wetlands to be present throughout the site. The parcel of land to be received by the church is not characterized by hydric soils, but is known to be occupied by extensive areas of standing water. This site could also harbor wetlands. Because wetlands have not been delineated on either site, however, it is not possible to provide an accurate estimate of the potential direct or indirect effects of Alternative F on wetlands at the present time. If wetlands are present, both the church and the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill.</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
Special Status Species	<p>The No Action Alternative would have no direct adverse effects on special status species since no construction would occur.</p> <p>The No Action Alternative would have no cumulative adverse effects on special status species. Continued current management would not result in impairment of any special status species on the two sites or in the surrounding area.</p>	<p>Alternative G could potentially affect ball-moss, climbing buckthorn and gopher tortoise that could potentially inhabit the site being received by the park, and ball-moss on the other site. However, detailed site-specific surveys are needed to confirm whether these species are present. It is therefore not possible to make an accurate estimate of the potential direct effects of the land exchange on these species. The exchange would have no effect on the other species listed since they are not present on this site.</p> <p>Cumulative effects of the land exchange on ball-moss, climbing buckthorn, gopher tortoise and pondspice cannot be assessed at the present time for, since the presence of these species on the two sites has not yet been confirmed. The project would</p>	<p>The effects of Alternative F on special status species would be the same as those described for Alternative G.</p>

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
		<p>have no cumulative effects on the other species that occur in the park since they do not occur in the parcels involved in the land exchange.</p> <p>Alternative G would not result in impairment of any special status species on the two sites or in the surrounding area.</p>	
Socioeconomics	Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on the economy of the area.	The construction of Alternative G could have a minor, short term, local, indirect beneficial effect on the economy of the St. Simons/Brunswick area. The operation of Alternative G would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area.	The construction of Alternative F could have a minor, short term, local, indirect beneficial effect on the economy the St. Simons/Brunswick area. The operation of Alternative F would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area.
Visitor Use and Experience	Implementation of the No Action Alternative would result in no	The construction of Alternative G could have a minor, short term,	The construction of Alternative F could have a minor, short term,

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
	short term or long term, direct or indirect, beneficial or adverse effects on visitor use and viewshed.	local, indirect adverse effect on visitor use and viewshed at the park. The operation of Alternative G could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park.	local, indirect adverse effect on visitor use and viewshed at the park. The operation of Alternative F could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park.
Transportation	Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on transportation in the area.	The construction of Alternative G could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The operation of Alternative G could have a minor, long term, local, indirect adverse effect on transportation in the area near the park.	The construction of Alternative F could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The operation of Alternative F could have a minor, long term, local, indirect adverse effect on transportation in the area near the park.
Soundscape and Noise	Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on soundscape and noise.	The construction of Alternative G could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The operation of Alternative G would have a negligible, long	The construction of Alternative F could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The operation of Alternative F would have a negligible, long

Table 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative E - No-Action Alternative	Alternative G Preferred Alternative	Alternative F
		term, local, direct adverse effect on soundscape and noise at the park.	term, local, direct adverse effect on soundscape and noise at the park.
Park Operations	Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on park operations.	The construction of Alternative G could have a moderate, short term, local, indirect adverse effect on park operations. The operation of Alternative G could have a moderate, long term, local, indirect adverse effect on park operations.	The construction of Alternative F could have a minor to moderate, short term, local, indirect adverse effect on park operations. The operation of Alternative F could have a moderate, long term, local, indirect adverse effect on park operations.

AFFECTED ENVIRONMENT, EVALUATION METHODOLOGY AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Affected Environment

This section describes the features of the affected environment that could potentially be affected by the proposed project. It is organized according to the previously described impact topics. This approach allows for a standardized comparison between alternatives based on the most relevant issues. These topics focus on the presentation of environmental consequences, and allow a standardized comparison between alternatives based on the most relevant topics. The National Environmental Policy Act requires consideration of context, intensity and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate for impacts. NPS policy also requires that “impairment” of resources be evaluated in all environmental documents. For each impact topic, these assessments are therefore provided.

METHODOLOGY

General Evaluation Methodology

The impact analyses and conclusions presented in this General Management Plan/Environmental Assessment are based on a review of available literature concerning Fort Frederica National Monument, information provided by national monument staff experts, other agencies, professional judgments, the Georgia state historic preservation office, and public input.

The effects of the alternatives are assessed according to guidelines presented in the National Park Service guidelines for preparing National Environmental Policy Act documents (NPS 2006). This approach involves assessing the context, intensity, duration, and cumulative nature of effects associated with project alternatives. The following sections define each of these terms.

General Definitions

The following definitions should be used to evaluate the context, intensity, duration, and cumulative nature of impacts associated with project alternatives:

Context is the setting within which an impact is analyzed, such as the affected region, society as a whole, the affected interests, and/or a locality. In this environmental assessment, the intensity of impacts is evaluated within a local (i.e., project area) context, while the intensity of the contribution of effects to cumulative impacts is evaluated in a regional context.

Intensity or severity of the impact is defined as follows (detailed thresholds for these impact intensities and durations are provided in Table 3):

Negligible – impact to the resource or discipline is barely perceptible and not measurable and confined to a small area.

Minor – impact to the resource or discipline is perceptible and measurable and is localized.

Moderate – impact is clearly detectable and could have appreciable effect on the resource or discipline.

Major – impact would have a substantial, highly noticeable influence on the resource or discipline on a regional scale.

Duration of the impacts in this analysis is defined as follows:

Short term - when impacts occur only during construction or last less than one year; or

Long term - impacts that last longer than one year.

Direct versus indirect impacts are defined as follows:

Direct – an effect that is caused by an action and occurs at the same time and place

Indirect – an effect that is caused by an action but is later in time or farther removed in distance, but still reasonably foreseeable.

Cultural Resource Analysis Method

In this environmental assessment, impacts to cultural resources are described in terms of type, context, duration, and intensity, as described above, which is consistent with the regulations of the Council on Environmental Quality (CEQ) that implement the National Environmental Policy Act (NEPA). These impact analyses are intended, however, to comply with the requirements of both NEPA and Section 106 of the National Historic Preservation Act (NHPA). In accordance with the Advisory Council on Historic Preservation's regulations implementing Section 106 of the NHPA (36 CFR Part 800,

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
Soils	Soils would not be affected or the effects on soils would be below or at levels of detection. Any effects on soil productivity or fertility would be slight and would return to normal shortly after completion of project construction activities.	The effects on soils would be detectable, but effects on soil productivity or fertility would be small. If mitigation was needed to offset adverse effects, it would be relatively simple to implement and would likely be successful.	The effect on soil productivity or fertility would be readily apparent and would result in a change to the soil character over a relatively wide area.	The effect on soil productivity or fertility would be readily apparent and would substantially change the character of the soils over a large area in and out of the park. Mitigation measures to offset adverse effects would be needed, and their success would not be assured.	Short-term - Following construction of the project, recovery would take less than a year. Long-term - Following construction of the project, recovery would take more than a year.
Vegetation – Native Plant Communities	Individual native plants may occasionally be affected, but measurable or perceptible changes in plant community size, integrity, or continuity would not occur.	Effects to native plants would be measurable or perceptible, but would be localized within a small area. The viability of the plant community would not be affected and the community, if left alone, would recover quickly.	A change would occur to the native plant community over a relatively large area that would be readily measurable in terms of abundance, distribution, quantity, or quality. Mitigation measures to offset/minimize adverse effects would be necessary and would likely be successful.	Effects to native communities would be readily apparent, and would substantially change vegetative community types over a large area, inside and outside the park. Extensive mitigation would be necessary to offset adverse effects and success would not be guaranteed.	Short-term: Recovers within one year. Long term: Takes more than one year to recover.

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
Wildlife	Wildlife and their habitats would not be affected or the effects would be at or below the level of detection and would not be measurable or of perceptible consequence to wildlife populations.	Effects on wildlife or habitats would be measurable or perceptible, but localized within a small area. While the mortality of individual animals might occur, the viability of wildlife populations would not be affected and the community, if left alone, would recover.	A change in wildlife populations or habitats would occur over a relatively large area. The change would be readily measurable in terms of abundance, distribution, quantity, or quality of population. Mitigation measures would be necessary to offset adverse effects, and would likely be successful.	Effects on wildlife populations or habitats would be readily apparent, and would substantially change wildlife populations over a large area in and out of the national park. Extensive mitigation would be needed to offset adverse effects, and the success of mitigation measures could not be assured.	Short-term - Recovers in less than a year after project completion. Long-term - Takes more than a year to recover after project is complete.

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
Wetlands	Effects (chemical, physical, or biological effects) that would not be detectable, would be well below water quality standards or criteria, and would be within historical or desired water quality conditions.	Effects (chemical, physical, or biological effects) would be detectable but would be well below water quality standards or criteria and within historical or desired water quality conditions.	Effects (chemical, physical, or biological effects) would be detectable but would be at or below water quality standards or criteria; however, historical baseline or desired water quality conditions would be temporarily altered.	Effects (chemical, physical, or biological effects) would be detectable and would be frequently altered from the historical baseline or desired water quality conditions; and/or chemical, physical, or biological water quality standards or criteria would be temporarily slightly and singularly exceeded.	<p>Short-term – Following treatment, recovery would take less than one year.</p> <p>Long-term – Following treatment, recovery would take longer than one year.</p>

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
Special Status Species	The action could result in a change to a population or individuals of a species or designated critical habitat, but the change would be so small that it would not be of any measurable or perceptible consequence.	The action could result in a change to a population or individuals of a species or designated critical habitat. The change would be measurable but small and localized and of little consequence.	The action would result in some change to a population or individuals of a species or designated critical habitat. The change would be measurable and of consequence.	The action would result in a noticeable change to a population or individuals of a species or resource or designated critical habitat.	Short-term – Recovers in less than 1 year. Long-term – Takes more than 1 year to recover.
Archeological Resources	Negligible adverse: Impact is at the lowest levels of detection - barely measurable with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be no historic properties affected.	Minor adverse: The action would affect one or more archeological sites with modest data potential and no significant ties to a living community’s cultural identity. The site disturbance would be confined to a small area with little, if any, loss of important information potential. For purposes of Section 106, the	Moderate adverse: The action would affect one or more archeological sites with good data potential and possible ties to a living community’s cultural identity. Site disturbance would be noticeable. For purposes of Section 106, the determination of effect would be adverse effect. Moderate beneficial:	Major adverse: The action would impact one or more archeological sites or districts listed in, or eligible for the National Register and/or having possible ties to a living community’s cultural identity, resulting in loss of site or district integrity. Site disturbance or resource degradation would be highly visible. For purposes of Section 106, the determination of effect would be adverse effect.	

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
		<p>determination of effect would be no adverse effect.</p> <p>Minor beneficial: The action would result in preservation of a site in its natural state. For purposes of Section 106, the determination of effect would be no adverse effect.</p>	<p>The alternative would noticeably enhance the protection or preservation of one or more archeological sites that are listed or eligible for listing in the National Register. For purposes of Section 106, the determination of effect would be no adverse effect.</p>	<p>Major beneficial: The alternative would substantially enhance the ability to protect and interpret important archeological resources and would foster conditions under which archeological resources and modern society can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations. For purposes of Section 106, the determination of effect would be no adverse effect.</p>	

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
<p>Cultural Landscapes, Historic Buildings, Structures and Objects</p>	<p>Negligible: The activity would not have the potential to cause effects on historic structures, buildings, districts or landscapes that would alter any of the characteristics that would qualify the resource for inclusion in or eligibility for the National Register. For purposes of Section 106, the determination would be no historic properties affected.</p>	<p>Minor adverse: The action would affect one or more a features of a structure, building, district, landscape, or an object that is eligible for or listed in the National Register, but it would neither alter its character-defining features nor diminish the overall integrity of the property. For purposes of Section 106, the determination of effect would be no adverse effect.</p> <p>Minor beneficial: The action would maintain and improve the character-defining features of a National Register -eligible or -listed structure, building, district, object or landscape</p>	<p>Moderate adverse: The action would alter one or more character-defining features of the structure, building, district, object or landscape. While the overall integrity of the resource would be diminished, the property would retain its National Register eligibility. For purposes of Section 106, the determination of effect would be adverse effect.</p> <p>Moderate beneficial: Positive actions would be taken to preserve and noticeably enhance character-defining elements of a structure, building, district, object or landscape in accordance with The</p>	<p>Major adverse: The action would alter character-defining features of the structure, building, district, object or landscape, seriously diminishing the overall integrity of the resource to the point where its National Register eligibility may be in question. For purposes of Section 106, the determination of effect would be adverse effect.</p> <p>Major beneficial: The action would enhance the character-defining features of a structure, building, district, object or landscape that represents important components of the nation's historic heritage and would foster conditions under which these cultural foundations of the nation and modern society could exist in productive harmony and</p>	

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
		<p>in accordance with The Secretary of the Interior’s Standards for the Treatment of Historic Properties (NPS 1995). For purposes of Section 106, the determination of effect would be no adverse effect.</p>	<p>Secretary of the Interior’s Standards for the Treatment of Historic Properties (NPS 1995c). For purposes of Section 106, the determination of effect would be no adverse effect.</p>	<p>fulfill the social, economic, and other requirements of present and future generations. The Section 106 determination of effect would be no adverse effect.</p>	
Socioeconomics	<p>No effects would occur or the effects to socioeconomic conditions would be below or at the level of detection. The effect would be slight and no long-term effects to socioeconomic conditions would occur.</p>	<p>The effects to socioeconomic conditions would be detectable, although short-term. Any effects would be small and if mitigation is needed to offset potential adverse effects, it would be simple and successful.</p>	<p>The effects to socioeconomic conditions would be readily apparent and likely long-term. Any effects would result in changes to socioeconomic conditions on a local scale. If mitigation is needed to offset potential adverse effects, it could be extensive, but would likely be successful.</p>	<p>The effects to socioeconomic conditions would be readily apparent, long-term, and would cause substantial changes to socioeconomic conditions in the region. Mitigation measures to offset potential adverse effects would be extensive and their success could not be guaranteed.</p>	<p>Short-term – Occurs only during the implementation of the project. Long-term – Persists beyond the implementation of the project.</p>
Visitor Use and Experience	<p>Visitors would not be affected, or changes</p>	<p>Changes in visitor experience and/or</p>	<p>Changes in visitor experience and/or</p>	<p>Changes in visitor experience and/or</p>	<p>Short-term – Effects occur only</p>

TABLE 4. IMPACT TOPIC THRESHOLD DEFINITIONS

IMPACT TOPIC	NEGLIGIBLE	MINOR	MODERATE	MAJOR	DURATION
and Viewshed	in visitor experience and/or understanding would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.	understanding would be detectable, although the changes would be slight. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.	understanding would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.	understanding would be readily apparent and have important consequences. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.	during project implementation activities. Long-term – Effects extend beyond project implementation activities.
Park Operations	Park operations and energy use would not be affected or the effect would be at or below levels of detection, and would not have an appreciable effect on park operations.	The effect would be detectable but would not be of a magnitude that it would appreciably change park operations or energy use. If mitigation were needed to offset adverse effects, it would be relatively simple and likely successful.	The effects would be readily apparent and would result in a substantial change in park operations and energy use in a manner noticeable to staff and the public. Mitigation measures would probably be necessary to offset adverse effects and would likely be successful.	The effects would be readily apparent and would result in a substantial change in park operations and energy use in a manner noticeable to staff and the public and be markedly different from existing operations. Mitigation measures to offset adverse effects would be needed, and their success would not be assured.	Short-term – Occurs only during the construction of the project. Long-term – Persists beyond the construction of the project.

Protection of Historic Properties), impacts to archeological and cultural resources should be identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed in or eligible to be listed in the National Register of Historic Places; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and (4) considering ways to avoid, minimize or mitigate adverse effects.

Under the Advisory Council's regulations a determination of either *adverse effect* or *no adverse effect* must also be made for affected, National Register eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualify it for inclusion in the National Register, e.g. diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects caused by the preferred alternative that would occur later in time, be farther removed in distance or be cumulative (36 CFR Part 800.5, *Assessment of Adverse Effects*). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and the National Park Service's Conservation Planning, Environmental Impact Analysis and Decision-making (Director's Order #12) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by Section 106 is similarly reduced. Although adverse effects under Section 106 may be mitigated, the effect remains adverse.

A Section 106 summary is included in the impact analysis sections for archeological and cultural resources under the preferred alternative. The Section 106 Summary is intended to meet the requirements of Section 106 and is an assessment of the effect of the undertaking (implementation of the alternative) on cultural resources, based upon the criterion of effect and criteria of adverse effect found in the Advisory Council's regulations.

Cumulative Effects Analysis Method

Cumulative effects were determined by assessing the combined effects of each alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to first identify other past, ongoing, or reasonably foreseeable future actions in the area near Fort Frederica National Monument, as well as future construction projects within the park itself. For this environmental assessment, it was assumed that the park has no future construction projects. Therefore, the cumulative effects assessment is based on a comparison of the relative effects of the proposed project in comparison with other past, ongoing, future and projects in the area.

The Council on Environmental Quality (1978) regulations for implementing the National Environmental Policy Act requires assessment of cumulative effects in the decision making process for federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (*40 Code of Federal Regulations 1508.7*).

Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other past, ongoing, or reasonably foreseeable future actions near Fort Frederica. Other significant actions that have the potential to have a cumulative effect in conjunction with this project include the projects described below. Figure 6 shows the location of the developments considered for cumulative effects, as well as other minor projects.

West Point Plantation has 200 dwelling units proposed.

The Landings at West Point has 22 dwelling units proposed.

Frederica Township is a 3,500 acre development owned by Sea Island containing a golf course, a spa, an equestrian center, and 350 dwelling units.

Marsh's Edge is a retirement center containing 30 single family dwelling units, three apartment buildings, and an assisted living facility that will be in operation in 2006.

Frederica Stables is a 31 acre development that is currently under construction and will contain an amphitheater, an equestrian camp, and stables.

Township Bluff has 61 dwelling units proposed...

Village Creek Way has 31 dwelling units under construction.

Oak Village has 22 dwelling units proposed.

Cumulative effects are considered for both no action and action alternatives. They are presented at the end of each impact topic analysis.

Impairment Analysis Method

In addition to determining the environmental consequences of the preferred and other alternatives, the 2001 NPS Management Policies and DO-12, require analysis of potential effects to determine if actions would impair (park) resources.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park and monument resources and values. However, the laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS management discretion to

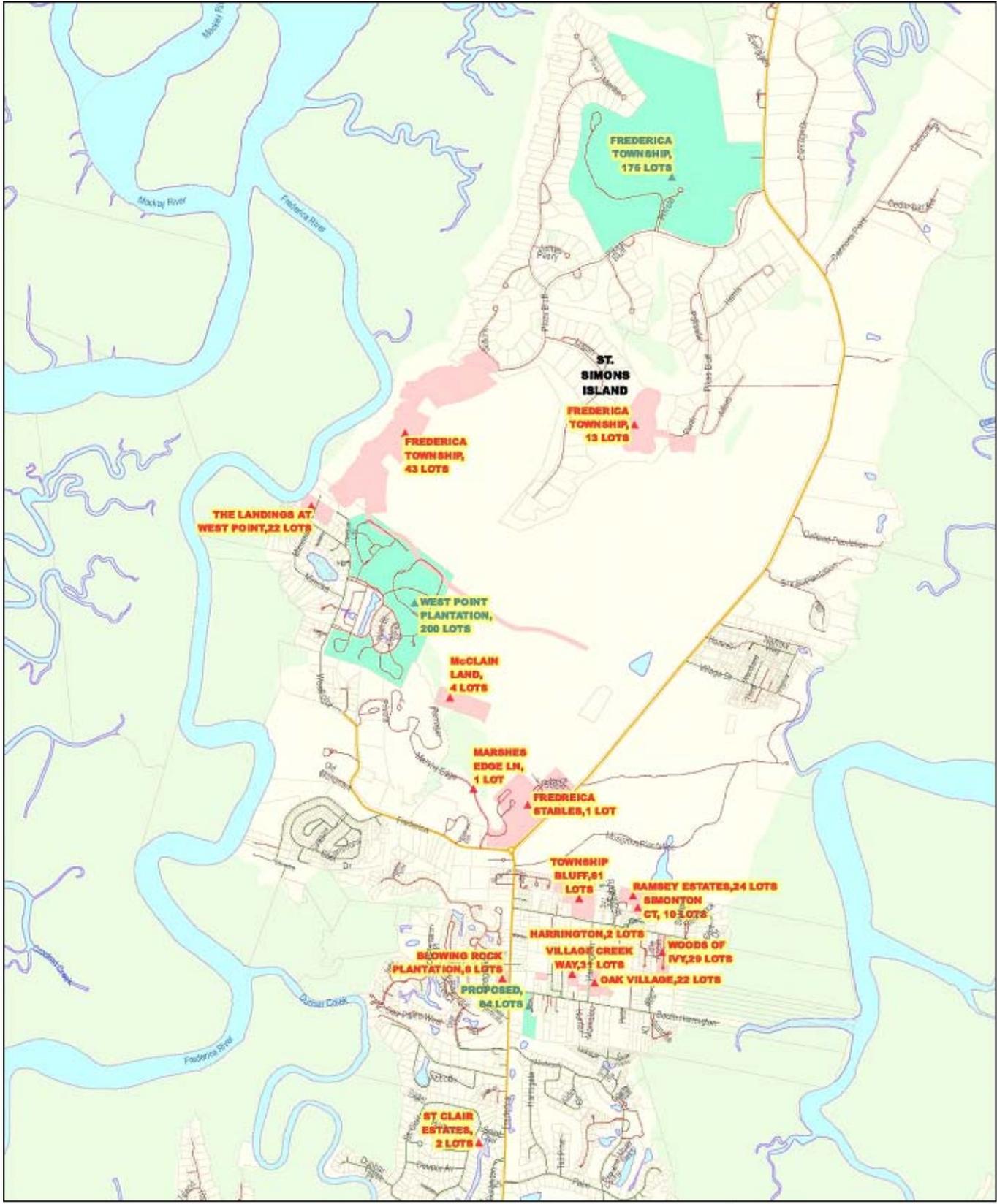


FIGURE 6
Growth Map
Glynn County, Georgia

allow certain impacts within parks, that discretion is limited by statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is:

Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;

Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or

Identified as a goal in the monument's Master Plan or General Management Plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park.

A determination of impairment is made for each impact topic within each "Conclusion" section of this EA under "Environmental Consequences."

CULTURAL RESOURCES

Affected Environment

Prehistory and History Background

Fort Frederica National Monument is listed on the National Register of Historic Places in recognition of its long and rich history of human use and important resources. The monument is situated on St. Simons Island, one of several barrier islands that lie along the Atlantic coast. These islands were formed during the Pleistocene and Holocene epochs and, with their associated biotic communities, estuaries, and marshes, provided abundant subsistence resources such as fish and other aquatic species for early peoples.

Fluctuations in sea levels are thought to have destroyed or hidden evidence of early settlement, but the presence of pottery dating somewhere around 2200 B.C. documents the presence of early peoples whose coastal tradition of subsistence was based primarily on the gathering of aquatic resources, supplemented by horticulture. Despite technological changes over time, this subsistence mode persisted for many centuries.

During the early 1500s Spanish explorers and slave hunters came into the Southeast, eventually establishing missions and colonies all the way from Florida to South Carolina. In the project area, the tribes encountered by the Spanish were known as Timucuan, part of the Mississippian culture that flourished over much of the Southeast. The eastern Timucuan ranged along Georgia's southeastern coastal plains; locally groups were known as the Mocama and the Guales.

At least two Franciscan missions to the Indians, San Buenaventura de Guadalquini and Asajo, were established by the Spanish on St. Simon Island during the 1600s. Competition with English traders in Virginia and establishment of Charles Town eventually diminished Spanish control, and led to the disruption of indigenous societies already decimated by exposure to European diseases. As area Native American populations decreased and the Spanish missions were abandoned in response to English colonization efforts, many of the barrier islands along the Georgia coast became depopulated. Eventually attempts to settle the territory led to establishment of the British colony of Georgia in 1733 (Coleman 1976).

The settlement of Frederica (a military outpost consisting of a fort and town) was established on St. Simons Island in 1736 by General James Oglethorpe as a buffer against Spanish control of what is now the southeastern United States. The original purpose of the English colony was to be a social experiment where England's debtors could gain a second chance, but reality mandated that the colony include people who could provide services or products to the soldiers.

The town serviced the fort whose British troops had been sent to protect Savannah and Charleston to the south. In mid-June, 1742 the Spanish under St. Augustine governor Don Manuel de Montiano organized an invasion of Georgia by sea. With around 5000 troops, the Spanish approached Fort Frederica through the adjacent marshes on July 7. General Oglethorpe's troops routed the invaders who had been hampered by the difficult terrain and unfamiliar territory, ending the Spanish threat to the English colonies along the coast of Georgia.

The original square structure of Fort Frederica was set in a 40-acre area fortified with a rampart wall, a dry moat, and two ten-foot high wooden palisades. The whole town was enclosed with earth and timber works from 10 to 13 feet high that included towers and a moat. The town was built in a traditional English village pattern with gardens and outbuildings, and was occupied by perhaps 1,000 people by 1743. However, many residents left when the garrison was disbanded following the 1748 peace treaty between Great Britain and Spain, and the town was abandoned following a disastrous fire in 1758. Christ Episcopal Church building was built between 1808 - 1820; it was destroyed during the Civil War and later rebuilt. The old church and its graveyard still stand near Fort Frederica. Local residents became interested in preserving the site as a reminder of America's colonial past in the 1900s, leading to the establishment of Fort Frederica National Monument in 1945. In recognition of the fort's pivotal role in United States history, the site was added to the National Register of Historic Places in 1966.

Archeological Resources

Beginning in 1947, the monument's cultural resources were been identified and archeologically investigated, resulting in preservation of numerous features that contribute significantly to interpretation of the site. Some of the exposed cultural resources include 21 brick and/or tabby foundations, parts of interior and exterior walls, and other structural remains that were once part of colonial Fort Frederica.

Other archeological resources remain buried, including artifacts and structural remains lying beneath the side and rear portions of the Frederica town lots. Thousands of

artifacts have been recovered from the site and, along with extensive archival materials, are on display at the visitor center or are stored at the monument and at the National Park Service's Southeast Archeological Center.

Late in 2004, Congress passed Public Law 108-417, authorizing the Secretary of the Interior to exchange approximately 6 acres of National Monument land adjacent to the boundary with Christ Church of Saint Simons Island for 8.7 acres of land across Frederica Road to the northeast of the entrance to the National Monument. This action would require compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) as well as other laws and National Park Service policies. While the land proposed for addition is not contiguous with monument boundaries, it is thought to contain the possible remains of General Oglethorpe's colonial house as well as extant foundations associated with an early day farm.

In anticipation of the proposed land exchange, in the fall of 2005 the Southeast Archeological Center surveyed and tested the federally owned monument land proposed for exchange in order to identify any previously unknown archeological resources that might be present (Lawson and Spear 2005). Two of the four features identified by the survey were overgrown paths or abandoned roads that had originally been surfaced with crushed shell and limestone. These paths presumably connected with Stevens Road in the past. The other two features were Bell South telephone line markers.

Sixty shovel tests were dug in evenly spaced intervals across the plot of land, resulting in the discovery of only four tests that showed evidence of past human activity. Three of these contained modern refuse and materials associated with the abandoned roads or paths that, at one time, connected to Stevens Road for the Frederica Yacht Club. The fourth test contained a small fragment of a handmade brick. However, no other cultural materials were found in the vicinity, and the brick fragment was located near the maintenance material staging area, making it likely that this isolated fragment was deposited here as refuse.

IMPACTS OF ALTERNATIVE E: NO ACTION / CONTINUE CURRENT MANAGEMENT ON ARCHEOLOGICAL RESOURCES

Analysis

Under the No Action Alternative the parcel of land belonging to Christ Episcopal Church would not be transferred to the National Park Service. Because no significant archeological resources were found within the parcel now owned by the park, continuation of existing conditions and programs would have a negligible effect on archeological resources in this area. However, the park would not have the opportunity to acquire the area thought to contain the remains of General Oglethorpe's colonial house and remnants of the historic farm. This valuable archeological research and interpretation information and the associated artifacts could be lost to future development or deterioration, a long-term moderate adverse effect.

Cumulative Effects

Because of their age, materials, and non-renewable nature, archeological sites are especially vulnerable to deterioration and loss. Past human activities and natural processes such as fire, wind, and flooding have added to, modified, or destroyed cultural sites, both within the park and in the surrounding area, resulting in long-term moderate to major adverse effects.

The park's sites are part of a larger cultural continuum that includes surrounding areas as well, so ongoing resource losses here and across a broader geographic area reduce the numbers and types of sites that are available for research and interpretation, leaving a skewed vision of past cultures for the future. Similar human activities and natural processes affecting cultural sites are expected to continue in the future. On-going park programs such as the Fire Management Plan would help slow but not eliminate the negative trend of gradual site deterioration and loss of information.

When the beneficial and adverse effects of other past, ongoing, and future plans, projects, and activities affecting archeological resources are combined with actions under the No Action Alternative, the resulting cumulative effects would be long-term, and moderately adverse. Effects would be moderately adverse because the numbers and extent of sites adversely affected in the region would far outweigh the benefits of park programs on resources within park boundaries.

Conclusions

Effects of the No Action Alternative on archeological resources within the park would be negligible, but over the long term, failure to acquire land containing sites important in the park's mission and interpretive story would be moderately adverse. Cumulative effects under this alternative would be long-term and moderately adverse because the numbers and extent of sites adversely affected in the region would far outweigh the benefits of park programs on resources within park boundaries.

There would be no impairment of archeological resources or values as a result of park actions under this alternative.

IMPACTS OF ALTERNATIVE G, THE PREFERRED ALTERNATIVE ON ARCHEOLOGICAL RESOURCES

As described for Alternative F, construction and operation of church-related facilities on the 6-acre parcel acquired from the park under Alternative G would have a negligible effect on archeological resources.

Under Alternative G, the 8.7-acre parcel would be investigated for archeological resources, and results would help guide establishment of three zones. A Natural Resource Based Passive Recreation Zone would be established on the northern portion of the parcel, and the southern portion of the parcel would have two zones, a Visitor Service Zone and a Historic Preservation Zone. The latter zone would be established to contain the extant historic archeological resources thought to be related to General Oglethorpe's colonial house as well as extant foundations associated with an early day

farm. Through this zoning the park would be able to protect potentially significant cultural sites, while providing for enhanced visitor use, a moderate long-term benefit.

With prior archeological investigations and design modifications to avoid sites, implementation of the Visitor Service Zone would have only modest potential for construction activities to encounter archeological resources during development, a long-term, direct negligible to minor adverse effect.

The Visitor Service Zone would encourage more visitor use in areas believed to have important cultural sites. This could result in some negligible to minor, direct and indirect adverse effects from development and from “wear and tear” on sites, along with occasional unauthorized relic collecting. On the other hand, these effects would be balanced by the presence of visitors, which often can be a strong deterrent to inappropriate uses or looting and vandalism of sites. In addition, Alternative G would encourage visitors to learn more about the cultural sites, and with additional education and interpretation, to build stewardship for archeological resources.

Negligible to minor adverse effects to archeological resources would result from construction and visitor use. However, preserving and interpreting the sites on the 8.7-acre parcel would have long-term, moderate to major beneficial effects on the park’s archeological resources.

Cumulative Effects

Cumulative effects would be the same as described for Alternative F.

Conclusions

With prior archeological investigations and establishment of zones, implementation of Alternative G would have negligible to minor adverse effects on archeological resources from development and visitor use; and long-term moderate to major beneficial effects from preserving, protecting, and interpreting the sites.

There would be no impairment of archeological resources or values as a result of park actions under this alternative.

IMPACTS OF ALTERNATIVE F ON ARCHEOLOGICAL RESOURCES

Analysis

Under Alternative F, the church would construct and operate church-related facilities on the 6-acre parcel received from the National Park Service. This construction would have a negligible effect on archeological resources because recent surveys and testing failed to uncover any significant archeological resources on this property.

The National Park Service would acquire the 8.7-acre parcel of land located near the northeast corner of the park as shown in Figure 2. Archeological investigations of the parcel would be conducted to establish the exact location, significance, and integrity of extant archeological remains so that any ground-disturbing activities for trails, etc. would have only negligible effects.

The property would be divided into two management zones whose location would be based on the archeological findings. However, at present it appears that the southern half of the parcel contains potentially important cultural resources (remains of General Oglethorpe's home and a historic farmstead), and this area would be designated a Historic Preservation Zone. The northern half of the 8.7-acre site would be designated as a Natural Resource Based Passive Recreation Zone. Only minimal "hardened" park facilities would be provided for visitors.

Acquisition and management of this parcel by the National Park Service would enable the identification and preservation of cultural resources (primarily archeological resources) important to the park's mission and interpretative programs. Zoning and minimal facilities would help ensure that sites are not directly impacted either by development or inappropriate visitor use, and would provide for excellent long-term protection of the archeological sites. These factors would contribute to moderate to major long-term benefits on archeological resources within the park under Alternative F.

Cumulative Effects

Cumulative effects of Alternative F would be the same as described for Alternative E, except that acquisition of the 8.7-acre parcel would have moderate to major long-term benefits to the park's archeological resources. This would help to slightly reduce the adverse effects of past, on going and reasonably expected future adverse effects of natural events and human activities such as development, looting, vandalism on a regional basis. However, as described for Alternative E, cumulative effects would still be adverse and moderate, because preservation of sites within the park would contribute only a small fraction of preservation efforts to the overall regional effects.

Conclusion

Church-related construction on the 6-acre parcel acquired from the National Park Service would have a negligible effect on archeological resources (none were identified during recent surveys).

Under Alternative F, results of acquisition, zoning and management of the 8.7-acre parcel by the National Park Service would enable the identification and preservation of cultural resources (primarily archeological resources) important to the park's mission and interpretative programs, and would provide future protection of these resources from development or inappropriate visitor uses. However, the modest amount of development of this parcel for visitor use could mean that some visitors might not be aware of the area's importance to the park's interpretive story. Implementation of Alternative F would have moderate to major long-term benefits on archeological resources in the 8.7-acre parcel.

Because preservation of sites within the park would contribute only a small fraction of preservation efforts to the overall regional effects, cumulative effects on archeological resources would be adverse, long-term, and moderate.

There would be no impairment of archeological resources or values as a result of park actions under this alternative.

CULTURAL LANDSCAPES HISTORIC BUILDINGS, STRUCTURES AND OBJECTS

Historic cultural landscapes represent a complex subset of cultural resources resulting from the interaction between people and the land. Cultural landscapes reflect the influence of human beliefs and actions over time on the natural landscape. Cultural landscapes are shaped through time by historical land-use and management practices, politics, property laws, levels of technology, and economic conditions. Cultural landscapes are a living record of an area's past, providing a visual chronicle of its history.

Cultural landscapes may be expressed in a variety of ways such as patterns of settlement or land use, systems of circulation and transportation, buildings and structures, parks and open space, etc. A cultural landscape by definition occupies a geographic area that incorporates natural and cultural elements that are associated with a historic activity, event, or person. Although a cultural landscape inventory has not been conducted for Fort Frederica, two of the four categories recognized by the National Park Service seem to best reflect the landscapes at the fort. That is, the fort and the immediate surroundings are an historic site significant for its association with the struggle between Great Britain and Spain for control of the eastern seaboard of the New World.

The distinct history of coastal Georgia is reflected by Fort Frederica's cultural landscape. This area is a historic designed landscape that reflects the British concept of how a military fort and a typical village should be organized on the land and what elements it should contain. The spatial organization, topography, land use patterns, roads, trails, walkways, open spaces, plantings and viewsheds present in and around the park all contribute to our understanding of centuries of use on St. Simon Island. Underlying all of the surface landscapes are archeological elements, some of which also may reflect settlement of this area by prehistoric peoples.

IMPACTS OF ALTERNATIVE E, THE NO ACTION ALTERNATIVE, ON CULTURAL LANDSCAPES, HISTORIC BUILDINGS, STRUCTURES AND OBJECTS

Analysis

Continuation of existing conditions would have a moderate beneficial effect on cultural landscapes, historic buildings, structures and objects within the park. Future development or other human activities could affect cultural landscape features in the parcel proposed for acquisition. However, because this parcel is physically/visually separated from the main part of the park, inappropriate uses or development here by others would probably have only negligible to minor adverse effects on the park's landscape and viewshed. The area proposed for acquisition has not been surveyed, so the effects of future non-National Park Service projects on any extant historic buildings, structures and objects in this parcel cannot be determined.

Cumulative Effects

As with archeological resources, past natural events and human actions have had both adverse and beneficial effects on historic structures and landscapes. Before creation of

Fort Frederica National Monument, the fort's structures and landscapes suffered from detrimental effects of time, weather, vandalism, neglect, and fire. Since that time, the extant structures and landscapes in the park have been maintained and preserved by the National Park Service. A Fire Management Plan has been developed by the park to help ensure further protection, and a cultural landscape report is proposed.. Other structures and landscapes in the area surrounding the park have suffered adverse effects in the past from both modern development and natural processes.

Under the No Action Alternative, on-going maintenance and operation activities in the park related to historic buildings, structures, landscapes and objects would continue as at present, and would continue to have a moderate beneficial effect. Area development would likely continue, and would have moderate adverse effects on cultural landscapes and component structures.

When the adverse effects of these past actions and events are added to the ongoing and expected future beneficial effects from park operations, this alternative would have a moderate adverse, long-term cumulative impact on historic buildings, structures, landscapes and objects. Cumulative effects would be long-term and moderately adverse because the numbers and extent of sites adversely affected in the region would far outweigh the benefits of park programs on resources within park boundaries.

Conclusions

A continuation of existing management activities would result in moderate benefits to historic structures, buildings, objects, and landscapes located within the park.

Future changes by others in the land proposed for addition would have an unknown effect on that landscape and any extant structures. However, it is likely that changes in the 8.7-acre church property landscape would have very little effect (negligible effect) on the park's cultural landscape because of the spatial separation between the two properties.

Cumulative effects would be long-term and moderately adverse because the benefits of preserving the present park landscape would be very small when compared with the loss of historic landscapes in the area to continued development.

There would be no impairment of cultural landscapes, or historic buildings, structures, and objects or values as a result of park actions under this alternative.

IMPACTS OF ALTERNATIVE G ON CULTURAL LANDSCAPES, HISTORIC BUILDINGS, STRUCTURES, AND OBJECTS.

Analysis

As described for Alternative F, transfer of the 6-acre parcel to the church would have a negligible adverse effect on the park's historic landscape because the parcel is adjacent to developed areas of the park. A small piece of the original historic landscape would be regained by the park. The park would regain a small piece of the original historic landscape by acquiring the 8.7-acre parcel, a long-term minor to moderate benefit. The new visitor facilities proposed in the Visitor Service Zone under Alternative G would be

designed to blend unobtrusively with the existing cultural landscape so that adverse effects of these developments would be minor.

Cumulative Effects

Cumulative effects under Alternative G would be the same as described for Alternative F (long-term, and moderately adverse) because the size of the areas outside that park that are being affected by development would outweigh the preservation and restoration of a few acres within the park.

Conclusions

Implementation of Alternative G would have a negligible effect on the park's historic landscape from transfer of the 6-acre parcel to the church (the parcel is adjacent to developed areas of the park). Minor to moderate benefits would accrue from addition of the 8.7-acre parcel because part of the original historic landscape would be returned to the park. Adverse effects of adding new visitor facilities in the Visitor Service Zone would be minor because structures would be designed to blend unobtrusively into the surrounding landscape.

Cumulative effects under Alternative G would be the same as described for Alternative F (long-term, and moderately adverse) because the size of the areas outside that park that are being affected by development would outweigh the preservation and restoration of a few acres within the park.

There would be no impairment of cultural landscapes, or historic buildings, structures, objects, and values as a result of park actions under this alternative.

IMPACTS OF ALTERNATIVE F ON CULTURAL LANDSCAPES, HISTORIC BUILDINGS, STRUCTURES, AND OBJECTS.

Analysis

Under Alternative F the 6-acre property transferred to the church would be developed for church purposes. The general area already has seen some development by the church, and the 6-acre parcel lies immediately adjacent to developed areas of the park to the north (maintenance compound, park residence, artifact storage, etc.) and natural areas to the west. Visually, developments on the 6-acre parcel would have very little effect (negligible effect) on the park's primary cultural landscape, which is concentrated in the historic core area.

Acquisition of the 8.7-acre parcel would add a non-contiguous unit to the park. This would help to restore another piece of the broader early-day landscape once occupied by the fort and the adjacent settlement, a long-term moderate benefit.

Cumulative Effects

Cumulative effects on cultural landscapes under Alternative F would be the same as Alternative E (because the small amount of land preserved in the added parcel would be overshadowed by extensive changes to landscapes in the surrounding area from development).

Conclusions

Transfer of the 6-acre parcel to the church would have a negligible adverse effect on the park's historic landscape. Acquisition of the 8.7-acre parcel would have long-term moderate benefits by restoring a piece of the original historic landscape. Cumulative effects would be long-term and moderately adverse because the small amount of land preserved in the added parcel would be overshadowed by extensive changes to landscapes in the surrounding area from development.

There would be no impairment of cultural landscapes, or historic buildings, structures, and objects and values as a result of park actions under this alternative.

SECTION 106 SUMMARY

Fort Frederica is listed on the National Register of Historic Places, so Section 106 of the National Historic Preservation Act is applicable to the undertaking described in this environmental assessment. Detailed descriptions of three alternatives, including Alternative E, no action and two action alternatives—Alternative F and Alternative G—are described in this document. The environmental assessment analyzes the potential impacts associated with possible implementation of each alternative, and describes the rationale for choosing the preferred alternative. Also contained in the environmental assessment are mitigation measures that would help avoid adverse effects on cultural resources (see “Practices to Minimize Effects on Cultural Resources” in Chapter 1-2).

Alternative F proposes transfer of a 6-acre parcel of National Park Service property to Christ Church of St. Simons Island. The church would build and operate church-related facilities here.

In the fall of 2005 the Southeast Archeological Center surveyed and tested the federally owned monument land proposed for exchange in order to identify any previously unknown archeological resources that might be present (Lawson and Spear 2005). Two features identified by the survey were overgrown paths or abandoned roads that had originally been surfaced with crushed shell and limestone. These paths presumably connected with Stevens Road in the past. The other two features were Bell South telephone line markers. The area was tested by digging 60 shovel tests in evenly spaced intervals across the plot of land. Of the four tests with cultural materials, three contained modern refuse, and one a small fragment of handmade brick. No other cultural materials were found in the vicinity, and it appears that this isolated fragment was refuse from the nearby maintenance material staging area. There were no National Register-eligible properties found in the 6-acre parcel proposed for exchange to Christ Church.

The 8.7-acre parcel of land proposed for acquisition by the National Park Service has not been surveyed for cultural resources, but wherever new construction is proposed, the area of potential effect would be inventoried, and resources would be evaluated for National Register of Historic Places eligibility. Projects would be structured to avoid eligible sites. A cultural landscape study is proposed/underway.

To protect the structural remains, cultural landscapes, and archeological resources from further deterioration by natural processes or human activity, the 8.7-acre acquisition would be divided into zones; a Natural Resource Based Passive Recreation Zone would

occupy the northern portion, and the southern portion would be designated as a Historic Preservation Zone. (Based on available information, this latter parcel is thought to contain historic foundations and the possible remains of General Oglethorpe's house.)

Alternative F would focus visitor use on resource protection and interpretive objectives, and there would be few "hardened" developments in this area. That is, visitor use would concentrate on activities such as hiking and interpretive tours and programs that would not damage or intrude upon archeological resources or the cultural landscape. Visitor facilities would be limited in number and size to further protect cultural resources.

The same zoning would occur under Alternative G, except that a third zone (a small Visitor Service Zone) would be created at the southern edge of the Historic Preservation Zone. The Visitor Service Zone would allow for construction of facilities such as parking, restrooms and sidewalks to encourage visitors to come to this sector of the park and observe the cultural resources and participate in interpretive programs. Through these programs, visitors would develop a sense of stewardship for the park's resources, helping to reduce future resource damage or loss.

Mitigating measures that would help reduce potential adverse effects on cultural resources are described in "Practices to Minimize Effects on Cultural Resources" in Chapter 1-2. In addition, all work would be performed in compliance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. Any new structures would be designed to blend unobtrusively into the historic landscape. Construction activities would be carefully planned to avoid damage to sensitive areas of the site. Ground-disturbing work would be monitored by an archeologist meeting the Secretary of the Interior's standards. An archeologist meeting the Secretary of the Interior's standards would monitor ground-disturbing work.

To avoid any unauthorized collecting from areas where construction is proposed, work crews would be educated about cultural resources in general and the need to protect any cultural resources encountered. Work crews would be instructed regarding the illegality of collecting artifacts on Federal lands to avoid any potential violations. In the unlikely event that previously unknown cultural resources were discovered during construction, work would be halted in the vicinity of the resource, and procedures outlined in 36 Code of Federal Regulations 800 would be followed.

As described in 36 CFR 800, the National Park Service finds that, with mitigation as described above, implementation of either one of the action alternatives would have an effect on historic properties eligible for the National Register of Historic Places, but that this effect would not be adverse (no adverse effect finding). This environmental assessment will be forwarded to the Georgia State Historic Preservation Officer (SHPO) for review and comment. Any corrections or changes in response to SHPO comments will be included in the final environmental document.

IMPACTS OF ALTERNATIVES ON SOILS

Affected Environment

Fort Frederica National Monument is located on St. Simons Island, a coastal barrier island "characterized by nearly level topography and poorly drained soils underlain by

marine sands, loams, and/or clays. The lower lying flat terraces do not have well defined drainage systems, and runoff moves slowly into slow-moving streams and finally into the ocean” (NPS 2004). Elevations range from sea level to about 10 feet within the park itself. The primary soil series within the park are Cainhoy, Pelham, Pottsburg, and Rutledge; Bohicket and Capers, as follows (from NPS 2004):

Bohicket: Very poorly drained, very slowly permeable soils that formed in marine sediments in tidal marshes. These soils are flooded twice daily by seawater. Slopes are less than 2 percent.

Cainhoy: Deep, excessively drained, rapidly permeable soils that formed in sandy marine sediments. Slopes range from 0 to 10 percent.

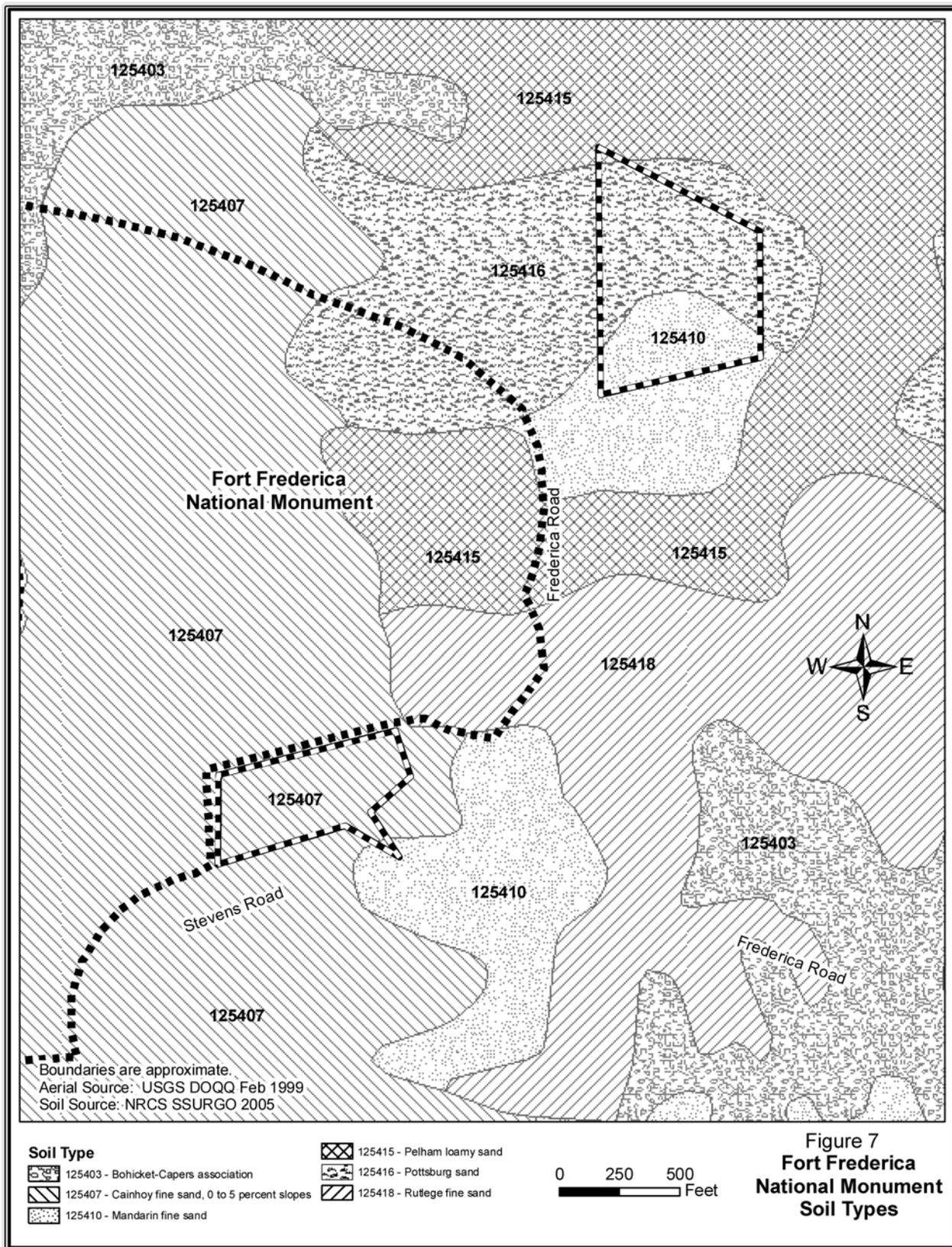
Capers: Very poorly drained, very slowly permeable soils in tidal marshes that formed in silty and clayey marine and stream terraces. Slopes range from 0 to 2 percent.

Pelham: Deep, poorly drained, moderately permeable soils that formed in unconsolidated Coastal Plain sediments. Located on nearly level broad flats, toe slopes, depressions and drainage-ways. Slopes range from 0 to 5 percent.

Pottsburg: Deep, poorly drained, moderately permeable soils that formed in sandy marine deposits. Located on flats, in areas of flatwoods, on rises, and on knolls. Slopes range from 0 to 2 percent.

Rutledge: Deep, very poorly drained, rapidly permeable soils that formed in marine or fluvial sediments. Located on flats, depressions, and floodplains. Slopes range from 0 to 2 percent.

Cainhoy fine sand occurs over 100 percent of the parcel of land to be received by the church (Figure 7). This is not a hydric soil, based on a review of hydric soils in Camden and Glynn Counties (NRCS 2006). Based on the soil map alone, it could be concluded that wetlands occur on the parcel of land to be received by the church. The National Wetland Inventory map shown (Figure 7) also indicates that no wetlands are present on this site. However, because they are drawn to such a large scale, these maps are only useful as planning tools and the presence of wetlands on the site cannot be ruled out at this time. For example, during the cultural resource survey conducted by the National Park Service Southeast Archeological Center in 2005 (SEAC 2005), large areas of standing water were reported on this site. Because three parameters, hydrology, soils, and vegetation, must be present for an area to qualify as a jurisdictional wetland, temporary periods of high water do not prove that jurisdictional wetlands are present on the site. A formal wetland delineation using the US Army Corps of Engineers Routine On-Site Method (USACE 1987) would be required to demonstrate this.



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The parcel of land to be received by the park includes three types of hydric soils over 100% of the parcel, based on a review of available soil maps and information on hydric soils for Glynn and Camden County (NRCS 2006). The three hydric soil types include Pelham sandy loam, Pottsburg sand, and Mandarin fine sand. The presence of hydric soils suggest the possibility that wetlands are present on this parcel. The National Wetland Inventory maps (Figure 7), however, do not indicate wetlands are present on this parcel. However, these maps are only useful as broad planning tools and the presence of wetlands on the site cannot be ruled out at this time. This would have to be confirmed by conducting a formal wetland delineation using the US Army Corps of Engineers Routine On-Site Method (USACE 1987). This would be conducted by the National park Service as part of a future environmental assessment for a proposed construction project.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Under the No Action Alternative, the land exchange would not take place and the soils on each of the two sites would remain in their present state. Both sites are completely vegetated, and soils would remain intact, subject to natural processes of erosion in a natural state. The No Action Alternative would therefore have no adverse, direct effects on soils.

The No Action Alternative would not cause growth to be induced in the surrounding area and would therefore not result in any adverse, indirect effects on soils.

Cumulative Impacts

Since no construction of any type would occur on either of the sites under the No Action Alternative, this alternative would no adverse cumulative effects on soils.

Conclusion

The No Action Alternative would not involve any construction on either site and would therefore not result in any direct adverse effects on soils. The No Action Alternative would not cause growth to be induced in the surrounding area and would therefore not result in any indirect effects on soils. Since no construction of any type would occur on the site under the No Action Alternative, this alternative would have no adverse cumulative effects on soils.

Impacts of Alternative G: The Preferred Alternative

Analysis

Under Alternative G, the entire 6 acre parcel of land to be received by the church would be cleared and the new church facilities would be constructed and operated. Soils would be disturbed during clearing and grubbing of the site. This would have minor, local, short-term, direct, adverse effects on soils. Alternative F would have identical effects on soils on the parcel of land to be received by the church. There would also be long-term

minor adverse effects due to loss of soil productivity and installation of impervious surfaces, etc.

Under Alternative G, a limited amount of clearing and grubbing (less than .25 acres) would be conducted at the site being received by the park for new visitor facilities, but more hardened facilities would be appropriate in the Visitor Services Zone as compared with Alternative F. Facilities could include roads, paved parking lots, paved trails, kiosks and paved picnic areas. Soils would be disturbed during clearing and grubbing activities, with greater effects within the Visitors Services Zone at the south end of this parcel. These activities would have minor, local, short-term, direct, adverse effects on soils. There would also be long-term minor adverse effects due to loss of soil productivity and installation of impervious surfaces, etc.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to soils across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on soils since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

Under Alternative G, clearing of the 6 acre parcel of land to be received by the church would have minor, local, long- and short-term, direct, adverse effects on soils. Alternative F would have identical effects on soils on the parcel of land to be received by the church.

Under Alternative G, more hardened facilities would be appropriate in the Visitor Services Zone as compared with Alternative F. These limited activities would have minor, local, short-term, direct, adverse effects on soils.

Construction and operation activities under Alternative G would not result in induced growth in the surrounding area, and would therefore have no adverse indirect effects on soils.

Construction activities on both parcels of land would result in a negligible cumulative effect on soils in the surrounding area, since this would represent a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects. The land exchange would not result in impairment of any soil resources on the two sites or in the surrounding area.

Impacts of Alternative F

Analysis

Under Alternative F, the entire 6 acre parcel of land to be received by the church would be cleared and the new church facilities would be constructed and operated. Soils would be disturbed during clearing and grubbing of the site. As described for Alternative , this would have minor, local, long- and short-term, direct, adverse effects on soils.

Under Alternative F, less land clearing and grubbing new visitor facilities, possibly including trails, kiosks and unpaved picnic areas. The extent of soil disturbance would be less than that produced under Alternative G because fewer hardened facilities would be constructed. These activities would have negligible, local, long- and short-term direct adverse effects on soils.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulted in moderate, long-term adverse effects to soils across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on soils since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

Under Alternative F, the entire 6 acre parcel of land to be received by the church would be cleared. This would have minor, local, short-term, direct, adverse effects on soils. Under Alternative G the extent of soil disturbance would be less than that produced under Alternative F because fewer hardened facilities would be constructed. These activities would have negligible, local, short-term direct adverse effects on soils.

Construction activities on both parcels of land would have a negligible cumulative effect on soils in the surrounding area, since this would represent a very small portion of the total amount of development going on in the area.

The land exchange would not result in impairment of any soil resources on the two sites or in the surrounding area.

IMPACTS OF ALTERNATIVES ON VEGETATION- NATIVE PLANT COMMUNITIES

Affected Environment

The plant communities of the Fort Frederica National Monument include maintained grassed areas or fields, the live oak/magnolia forest, the pine successional areas, the low and high marsh areas and the mud flats (Schmidt, 2004). The area to be received by the park is within the live oak/magnolia forested area and is representative of that plant community. Laurel and live oak are the dominant species in the canopy, with saw palmetto, wax myrtle, blueberry, dogwood, redbud, persimmon, and yaupon holly in the subcanopy and understory. Ground cover species include ferns, grasses, and forb species with the species present and density of cover dependant upon the density of the canopy and the moisture in the soil. Some of the ground cover species present include wood fern, bracken fern, wood oats, cudweed, dog fennel, and other herbaceous species. Also present are vines such as greenbrier, poison ivy, and honeysuckle (Schmidt, 2004). Nuisance species which may be present, especially along the edges of trails and clearings, include *Daubentonia*, wisteria, and privet. These three species have been identified by park staff as the most significant threat to the native plant communities (NPS, 2004).

The type of forest in the land to be acquired by the park appears to be live oak/magnolia forest, but this would have to be confirmed by a detailed survey. Because this parcel is characterized by hydric soils, it is possible that the site is a forested or a scrub-shrub wetland.

The property to be received by the church has not yet been fully surveyed but is believed to support a live oak/magnolia plant community, but with a dominance of loblolly pines and a subdominance of the hardwood species. Observations made of large areas of standing water during the archeological survey could indicate the presence of wetlands within this site. This would have to be confirmed by additional surveys however.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

No construction would occur on either site under the No Action Alternative. The No Action Alternative would therefore have no direct adverse effects on vegetation.

Cumulative Impacts

Because no construction would occur under the No Action Alternative, this alternative would have no cumulative adverse effects on vegetation.

Conclusion

Because no construction would occur under the No Action Alternative, this alternative would have no direct, indirect or cumulative adverse effects on vegetation.

The land exchange would not result in impairment of any vegetation resources on the two sites or in the surrounding area.

Impacts of Alternative G: The Preferred Alternative

Analysis

The entire 6 acre parcel of land to be received by the church would be cleared of all vegetation and the new church facilities would be constructed and operated. Loss of 6 acres of live oak/magnolia forest would represent a 2.2% reduction in the forested habitat in the 278 acre park. This would be offset by a gain of 8.7 acres of forested habitat (a 3.1% increase in vegetated area) in the parcel of land to be received by the National Park Service. Clearing of the parcel to be received by the church would therefore result in a net increase of 0.9% in forested area within the park. However, since forested areas within the park would be removed as a result of the project, the overall effect is estimated to result in a moderate local, long-term, direct effect on vegetation.

The type of forest in the parcel to be acquired by the park appears to be live oak/magnolia forest, but this would have to be confirmed by a detailed survey. Because this parcel is characterized by hydric soils, it is possible that the site is a forested wetland.

A limited amount of vegetation clearing (less than approximately 0.25 acres) would be conducted at the site being received by the park for new visitor facilities, but more hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative F. Facilities could include roads, paved parking lots, paved trails, kiosks and

paved picnic areas. Since the actual size of the Visitor Services Zone is conceptual at this point, only a qualitative estimate of the extent of the effects on vegetation is possible in the present environmental assessment. Vegetation would be cleared, with more clearing within the Visitors Services Zone at the south end of this parcel. These activities would have minor, local, short-term, direct, adverse effects on vegetation.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to vegetation across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on vegetation since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

The exchange of the two parcels would result in loss of 6 acres of forested land. The overall effect, however, is still estimated to result in a moderate local, long-term, direct effect on vegetation. The parcel to be received by the park is also characterized by hydric soils, and it is possible that the site is a forested or a scrub-shrub wetland. A limited amount of vegetation clearing would be conducted at the site being received by the park, which would have minor, local, long-term, direct, adverse effects on vegetation.

Construction activities on both parcels of land would result in a negligible long-term cumulative effect on vegetation in the surrounding area.

Alternative G would not result in impairment of any vegetation resources on the two sites or in the surrounding area.

Impacts of Alternative F

Analysis

The entire 6 acre parcel of land to be received by the church would be cleared of all vegetation and the new church facilities would be constructed and operated. Loss of 6 acres of live oak/magnolia forest would represent a 2.2% reduction in the forested habitat in the 278 acre park. Since forested areas within the park would be removed as a result of the project, the overall effect is estimated to result in a moderate local, long-term, direct effect on vegetation.

The type of forest in the parcel to be acquired by the park appears to be live oak/magnolia forest, but this would have to be confirmed by a detailed survey. Because this parcel is characterized by hydric soils, it is possible that the site is a forested wetland.

A limited amount (approximately 0.25 acres) of vegetation clearing would be conducted at the site being received by the park for new visitor facilities, but fewer hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative G. Facilities would be limited to trails, kiosks and unpaved picnic areas. Vegetation could

be cleared for these limited facilities anywhere within the 8.7 acre parcel. These activities would have negligible, local, short-term, direct, adverse effects on vegetation.

Construction and operation under Alternative F would not result in induced growth in the surrounding area, and would therefore have no adverse indirect effects on vegetation.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to vegetation across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on vegetation since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

For the parcel of land being transferred to the church, the effects of Alternative F on vegetation would be the same as those of Alternative G. Alternative F would also have a moderate local, long-term, direct effects on vegetation.

In the parcel of land to be received by the park, a slightly smaller area of vegetation would be cleared in the Visitor's Services Zone, as compared to Alternative G. This alternative would have negligible, local, short-term, direct, adverse direct effects on vegetation.

Construction activities on both parcels of land would result in a negligible cumulative effect on vegetation in the surrounding area, since this would represent a very small portion of the total amount of development going on in the area.

Alternative F would not result in impairment of any vegetation resources on the two sites or in the surrounding area.

IMPACTS OF ALTERNATIVES ON WILDLIFE

Affected Environment

Reptile and Amphibian species: A survey of herpetofaunal species was conducted on southeastern United States National Parks over a two-year period, and one of the parks surveyed was Fort Frederica National Monument (Tuberville, 2005). The survey identified 20 native herpetofaunal species of the 147 native species known to occur on or in the vicinity of the National Parks Service Southeast Coast Network and one introduced species. The native species include five amphibians, the American alligator, two turtles, 5 lizards, and seven snakes (Tuberville, 2005).

The introduced greenhouse frog has not been identified as an invasive species because of its small size and relatively benign impact on the environment. This frog is commonly found on disturbed sites such as household gardens and landscapes, as well as in moist wooded areas and gopher tortoise burrows (Gulf States Marine Fisheries Commission, 2006).

Bird species. No inventory has been conducted on the avian species on Fort Frederica National Monument to date (Brooks, personal communication 2006). The Georgia coastline habitats support over 300 species of birds, including resident and migratory species (NPS, 2004). Frederica National Monument is located within the Atlantic Flyway, and the marshes and forests of the area are essential to the survival of many bird populations (USFWS, 1992).

Mammals. There are no known surveys for mammals on Fort Frederica National Monument to date (Brooks, personal communication, 2006). Mammals known to occur, however, are common species such as mice, rats, squirrels, raccoons, opossum, rabbits, bats, foxes, deer, and feral hogs.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Under the No Action Alternative, the land exchange would not take place and the wildlife habitats on each of the two sites would remain in their present state. Both sites are completely vegetated, wildlife habitats would remain in their present condition. The No Action Alternative would therefore have no adverse, direct effects on wildlife.

The No Action Alternative would not cause growth to be induced in the surrounding area and would therefore not result in any indirect effects on wildlife.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to wildlife across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on wildlife since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

Under the No Action Alternative, the land exchange would not take place and the wildlife habitats on each of the two sites would remain in their present state. The No Action Alternative would therefore have no adverse, direct effects on wildlife. The No Action Alternative would not cause growth to be induced in the surrounding area and would therefore not result in any indirect effects on wildlife. Construction activities on both parcels of land would result in a negligible cumulative effect on wildlife in the surrounding area

The land exchange would not result in impairment of any wildlife resources on the two sites or in the surrounding area.

Impacts of Alternative G (Preferred Alternative)

Analysis

The effects of Alternative G on wildlife are directly correlated with the effects of the clearing of forested habitat. The entire 6 acre parcel of land to be received by the church would be cleared of all forest and the new church facilities would be constructed and operated on this parcel. Loss of 6 acres of live oak/magnolia forest would represent a 2.2% reduction in the available wildlife habitat in the 278 acre park. This would be offset by a gain of 8.7 acres of forested wildlife habitat (a 3.1% increase in vegetated area) in the parcel of land to be received by the National Park Service. Clearing of the parcel to be received by the church would therefore result in a net increase of 0.9% in forested wildlife habitat within the park. However, since forested areas within the park would be removed as a result of the project, the overall effect is estimated to result in a moderate local, long-term, direct effect on wildlife.

The type of wildlife habitat in the parcel to be acquired by the park appears to be live oak/magnolia forest, but this would have to be confirmed by a detailed survey. Because this parcel is characterized by hydric soils, it is possible that the site is a forested wetland, with associated wildlife species characteristic of this habitat type..

A limited amount of vegetation clearing would be conducted at the site being received by the park for new visitor facilities, but more hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative F. Facilities could include roads, paved parking lots, paved trails, kiosks and paved picnic areas. Since the actual size of the Visitor Services Zone is conceptual at this point, only a qualitative estimate of the extent of the effects on wildlife is possible in the present environmental assessment. Vegetation would be cleared and wildlife habitat would be permanently removed from the site, resulting in minor, local, long-term, direct, adverse effects on wildlife. Construction activities would produce noise and cause wildlife to avoid the construction site and nearby environs, resulting in minor, local, short-term, direct, adverse effects on wildlife.

Construction and operation under Alternative G would not result in induced growth in the surrounding area, and would therefore have no adverse indirect effects on wildlife.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to wildlife across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on wildlife since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

The effects of Alternative G on wildlife are directly correlated with the effects of the clearing of forested habitat. Clearing of the parcel to be received by the church would result in a net increase of 2.2% in forested wildlife habitat within the park. The overall effect is estimated to result in a moderate local, long-term, direct effect on wildlife.

Because more hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative F, more clearing would occur under this alternative as compared with Alternative F. These activities would have minor, local, long-term, direct, adverse effects on wildlife.

Construction activities on both parcels of land would result in a negligible cumulative effect on vegetation in the surrounding area.

The land exchange would not result in impairment of any vegetation resources on the two sites or in the surrounding area.

Impacts of Alternative F

Analysis

The entire 6 acre parcel of land to be received by the church would be cleared of all vegetation and the new church facilities would be constructed and operated. Loss of 6 acres of live oak/magnolia forest would represent a 2.2% reduction in the forested wildlife habitat in the 278 acre park. This would be offset by a gain of 8.7 acres of forested habitat (a 3.1% increase in vegetated area) in the parcel of land to be received by the National Park Service. Clearing of the parcel to be received by the church would therefore result in a net increase of 0.9% in forested area within the park. However, since forested areas within the park would be removed as a result of the project, the overall effect is estimated to result in a moderate local, long-term, direct effect on wildlife.

The type of forest in the parcel to be acquired by the park appears to be live oak/magnolia forest, but this would have to be confirmed by a detailed survey. Because this parcel is characterized by hydric soils, it is possible that the site is a forested wetland.

A limited amount of vegetation clearing would be conducted at the site being received by the park for new visitor facilities, but fewer hardened facilities would be constructed in the Visitor Services Zone as compared with Alternative G. Facilities would be limited to trails, kiosks and unpaved picnic areas. Vegetation could be cleared for these limited facilities anywhere within the 8.7 acre parcel. These activities would therefore have negligible, local, long-term, direct, adverse effects on wildlife.

Construction and operation under Alternative F would not result in induced growth in the surrounding area, and would therefore have no adverse indirect effects on wildlife.

Cumulative Impacts

St. Simons Island is under intense development pressure. Residential and commercial facilities have been constructed or are planned on all adjacent parcels. These actions have resulting in moderate, long-term adverse effects to wildlife across the island. By increasing the amount of development on the island, the proposed project would have a negligible, long-term adverse cumulative effect on wildlife since the amount of land disturbed by the proposed project would be a very small portion of the total amount of land being converted by past, present and reasonably foreseeable future projects.

Conclusion

The effects of Alternative G on wildlife are directly correlated with the effects of clearing of forested habitat. Clearing of the parcel to be received by the church would result in a net increase of 0.9% in forested wildlife habitat within the park. The overall effect is estimated to result in a moderate local, long-term, direct effect on wildlife.

Because fewer hardened facilities would be constructed as compared with Alternative G, less clearing would occur under this alternative as compared with Alternative G. These activities would have negligible, local, long-term, direct, adverse effects on wildlife.

Construction and operation under Alternative F would have no adverse indirect or cumulative effects on wildlife.

The land exchange would not result in impairment of any wildlife resources on the two sites or in the surrounding area.

IMPACTS OF ALTERNATIVES ON WETLANDS

Affected Environment

The park is located on a coastal barrier island that includes numerous types of freshwater and estuarine wetlands, including tidal marshes, freshwater emergent wetlands, and freshwater forested wetlands. These wetlands are characterized by a wide variety of functions and values, including filtering of surface runoff, erosion control and shoreline stabilization, flood control, groundwater recharge and discharge, habitat for wildlife and special status species, high rates of primary production, and habitat for special status species.

No site specific wetland maps are available for wetlands on either of the two parcels of land involved in the land exchange. The presence of wetlands on the two sites was therefore estimated using the available National Wetland Inventory maps (USFWS 2006) and soil maps (NRCS 2006). Because the National Wetland Inventory maps and soil maps are mapped at a large scale, they provide at best an approximate indication of the presence of wetlands on most sites. A site-specific wetland delineation would therefore be required to determine the precise extent of wetlands on each of the two sites involved in the land exchange. For the site being acquired by the park, a delineation would be conducted as part of an environmental assessment for a future project, using the US Army Corps of Engineers Routine On-Site Method (USACE 1987). In the case of the parcel being received by the church, the National Park Service would no longer be involved, but the church would have to meet the requirements of Section 404 of the Clean water Act, which governs placement of fill or dredged material in waters of the United States, including wetlands. The park would also be required to comply with all state regulations regarding wetlands.

Based on the National Wetland Inventory maps (Figure 7), wetlands do not occur over the majority of the parcel of land being received by the park. The parcel of land to be received by the park is, however, located immediately adjacent to and appears to impinge on a very small portion of a palustrine, forested, deciduous/polyhaline, saturated wetland (PFO1/4A) in the northeast corner of the site. Because of the scale of the

National Wetland Inventory map, it is difficult to conclude whether the site actually intrudes on this adjacent wetland. However, based on the soil map for the area (NRCS 2006), the entire parcel of land to be received by the park is characterized by three different types of “hydric” soils (Pelham sandy loam, Pottsburg sand, and Mandarin fine sand), suggesting that wetlands may in fact be present over most of the site. A site-specific delineation using the US Army Corps of Engineers Routine On-Site Method (USACE 1987) would be required to confirm whether wetlands are actually present. These would probably be forested wetlands based on a brief site survey made in December 2005 by the National Park Service project team. Should the National Park Service propose to construct and operate facilities on the parcel of land being received from the church, a wetland delineation would be conducted as part of an environmental assessment. If wetlands are present, the park would be required to comply with Section 404 Clean Water Act regulations for placement of any fill or dredged material in the area, as well as state wetland regulations.

The parcel of land being received by the church is characterized by a single upland soil type (Cainho fine sand), suggesting that no wetlands are present. The National Wetland Inventory map also indicates that no wetlands are present. However, because the soil maps and National Wetland Inventory maps are drawn at large scales, a site-specific delineation using the US Army Corps of Engineers Routine On-Site Method (USACE 1987) would be needed to confirm whether wetlands are actually present. This would be the responsibility of the church, since they would be developing the site after the land exchange occurs. The church would also be subject to the requirements of Section 404 of the Clean Water Act, as well as state wetland regulations.

Wetlands are also located in the immediate vicinity of the parcel of land being received by the church, although the nearest wetland to this parcel is located over 1,000 feet to the east (Figure 8). This is an estuarine wetland (type: E2EM1P). Two freshwater wetlands (PFO4Rd, PEM1C types) are also located immediately to the north of this wetland (Figure 8).

Impacts of Alternative E: No Action / Continue Current Management

Analysis

No construction would occur on either site under the No Action Alternative. The No Action Alternative would therefore have no direct adverse effects on wetlands.

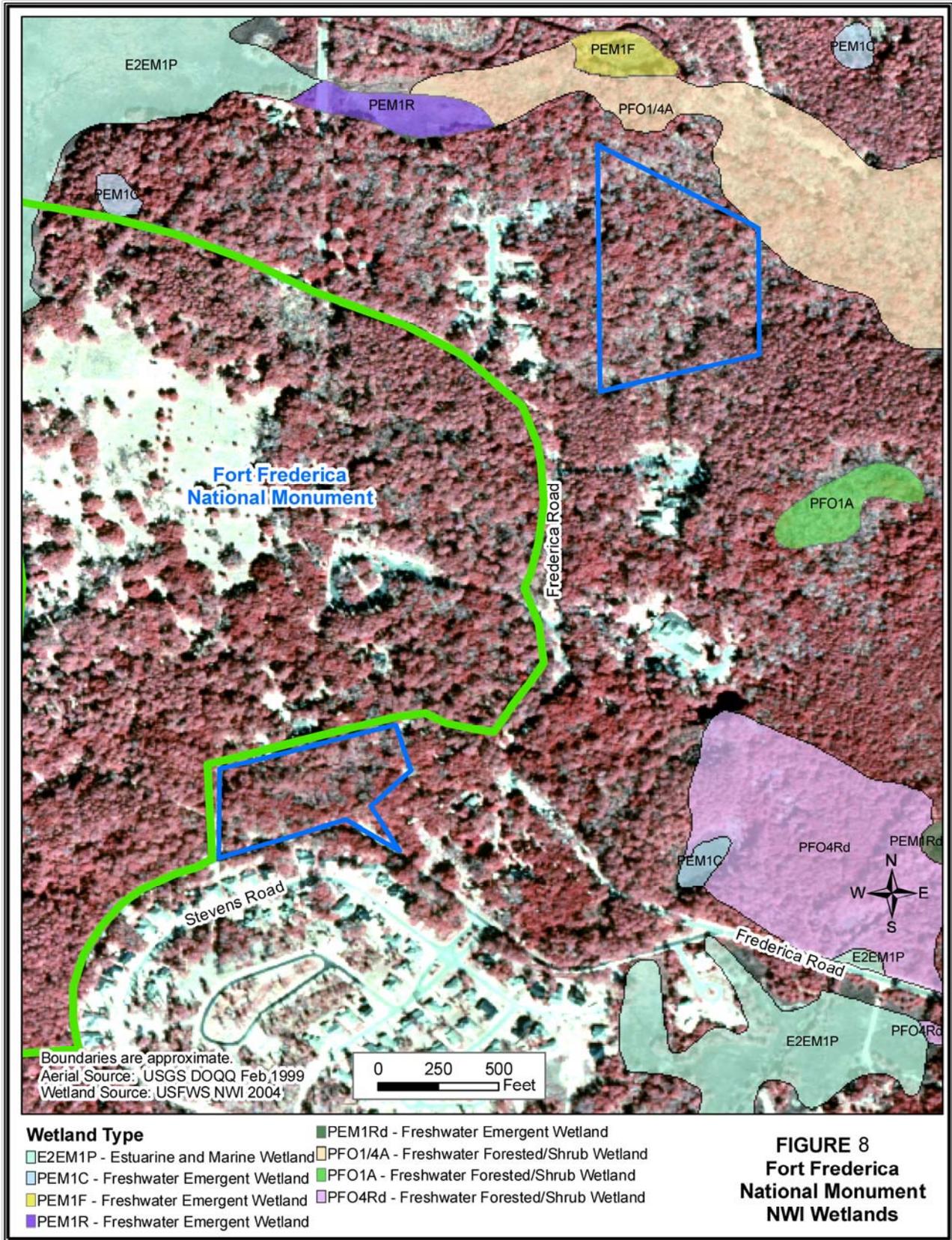
Cumulative Impacts

Construction activities on both parcels of land would result in a no cumulative effect on wetlands in the surrounding area, since no construction would occur.

Conclusion

No construction would occur on either site under the No Action Alternative. The No Action Alternative would therefore have no direct adverse effects on wetlands.

The No Action Alternative would not result in impairment of any wetland resources on the two sites or in the surrounding area.



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Impacts of Alternative G: The Preferred Alternative

Analysis

Clearing of the parcel of land to be received by the church would not affect any known wetlands on this site, since none appear to be present. However, a formal wetland delineation has not been conducted for this site, therefore it cannot be conclusively stated that wetlands are not present, or that they would not be impacted. It is therefore not possible to provide an accurate estimate of the potential direct effects of the land exchange on wetlands for this site at the present time. However, if wetlands are present, the church would be required to conduct a delineation as part of a Section 404 permit for placement of fill. The church would be responsible for staying in compliance with Section 404 regulations on this site, since they would be the new owner.

A similar situation exists at the parcel of land to be received by the park, since the actual presence of wetlands has not yet been confirmed. Because the entire site is occupied by hydric soils, it is possible that the site is a jurisdictional wetland. However, this needs to be confirmed by a formal wetland delineation. As a result of these factors, it is not possible to estimate the direct effects of the land exchange project on wetlands at this site at the present time. However, if wetlands are present, the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill, since they would be the new owner. A delineation and assessment of wetland functions and values would also be conducted as part of an environmental assessment completed by the National Park Service.

Alternative G would not result in induced growth in the surrounding area, and would therefore not have any adverse indirect effects on wetlands.

Cumulative Impacts

Development on the island has resulted in loss of wetlands – a moderate long-term adverse effect. The presence of wetlands on either of the two sites has not yet been confirmed. Therefore, it is not possible to estimate the nature of any cumulative effects. However, it is likely that these would be minor and long-term effects.

Conclusion

The parcel of land to be received by the park is characterized by 100% hydric soils, indicating the potential for wetlands to be present throughout the site. The parcel of land to be received by the church is not characterized by hydric soils, but is known to be occupied by extensive areas of standing water. This site could also harbor wetlands. Because wetlands have not been delineated on either site, however, it is not possible to provide an accurate estimate of the potential direct effects of Alternative G on wetlands at the present time. If wetlands are present, both the church and the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill.

Impacts of Alternative F

Analysis

Clearing of the parcel of land to be received by the church would not affect any known wetlands on this site, since none appear to be present. However, a formal wetland delineation has not been conducted for this site, therefore it cannot be conclusively stated that wetlands are not present, or that they would not be impacted. It is therefore not possible to provide an accurate estimate of the potential direct effects of the land exchange on wetlands for this site at the present time. However, if wetlands are present, the church would be required to conduct a delineation as part of a Section 404 permit for placement of fill. The church would be responsible for staying in compliance with Section 404 regulations on this site, since they would be the new owner.

A similar situation exists at the parcel of land to be received by the park, since the actual presence of wetlands has not yet been confirmed. Since the entire site is occupied by hydric soils, it is possible that the site is a jurisdictional wetland. However, this needs to be confirmed by completing a formal wetland delineation. As a result of these factors, it is not possible to estimate the direct effects of the land exchange project on wetlands at this site at the present time. However, if wetlands are present, the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill, since they would be the new owner. A delineation and assessment of wetland functions and values would also be conducted as part of an environmental assessment completed by the National Park Service.

Alternative G would not result in induced growth in the surrounding area, and would therefore not have any adverse indirect effects on wetlands.

Cumulative Impacts

The presence of wetlands on either of the two sites has not yet been confirmed. Therefore, it is not possible to estimate the nature of any cumulative effects. However, it is likely that these would be minor and long-term effects.

Conclusion

The parcel of land to be received by the park is characterized by 100% hydric soils, indicating the potential for wetlands to be present throughout the site. The parcel of land to be received by the church is not characterized by hydric soils, but is known to be occupied by extensive areas of standing water. This site could also harbor wetlands. Because wetlands have not been delineated on either site, however, it is not possible to provide an accurate estimate of the potential direct or indirect effects of Alternative F on wetlands at the present time. If wetlands are present, both the church and the National Park Service would be required to conduct a delineation as part of a Section 404 permit for placement of fill.

IMPACTS OF ALTERNATIVES ON SPECIAL STATUS SPECIES

Affected Environment

Special status species include those that have been listed either by the federal or state government as being threatened or endangered. Special status species that are potentially found within the boundaries of Fort Frederica National Monument include the following (NPS, 2004):

TABLE 5. SPECIAL STATUS SPECIES POTENTIALLY FOUND WITHIN THE BOUNDARIES OF FORT FREDERICA NATIONAL MONUMENT (NPS 2004).

Common Name	Scientific Name	State Status	Federal Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	E	T
Eastern indigo snake	<i>Drymarchon corais</i>	T	T
Gopher tortoise ²	<i>Gopherus polyphemus</i>	S	
Peregrine falcon	<i>Falco peregrinus anatum</i>	E	
West Indian manatee	<i>Trichechus manatus</i>	E	E
Wood stork	<i>Mycteria americana</i>	T	T
Ball-moss ^{1,2}	<i>Tillandsia recurvata</i>	T	
Climbing buckthorn ²	<i>Sageretia minutiflora</i>	T	
Pondspice ²	<i>Litsea aestivalis</i>	T	

¹ Could potentially occur on the parcel and land received by the church; detailed survey needed to confirm

² Could potentially occur on the parcel and land received by the park; detailed survey needed to confirm

Animals

Only the West Indian manatee has actually been sighted within the boundaries of the monument. This species was seen on two occasions in the Frederica River in 1990 and has not been seen since. The Eastern indigo snake is the only species listed in Table 5 that is likely to exist on either of the two sites involved in the land exchange. The sites are landlocked and consist of upland habitat so there is no habitat provided for the manatee or wood storks (Mohler, 1992).

Bald eagles may forage in the nearby marsh, but no nests are known to exist on or in the vicinity of either of the two land exchange sites. Nests for these large raptors are easy to identify and are typically located in large trees near open water (NPS, 2004).

The peregrine falcon prefers open habitat, such as marshes, fields, and swamps, and do not prefer densely forested areas such as the two land exchange sites. The reports of peregrine falcons in the area are likely of those birds using the Atlantic flyway for migration purposes. These peregrine falcons are often sighted in March and April, or in September and October (Rogers et al, 1996).

No gopher tortoises were observed on the monument property during the herpetological survey on the Fort Frederica site (Tuberville, 2005). The gopher tortoise could be present on the property to be received by the park, however. A survey would be completed as part of a site-specific environmental assessment for future construction projects on this site.

Plants

Ball moss occurs in the branches of live oak in Georgia, especially near the coast (USFWS 2006). Since both sites are completely forested, it is possible that this species occurs in the areas affected by the land exchange. A site-specific survey would be needed, however, to confirm this.

Climbing buckthorn inhabits calcareous rocky bluffs, forested shell middens on barrier islands, and evergreen hammocks along streambanks and coastal marshes (USFWS 2006). There are co calcareous bluffs on either of the two parcels of land involved in the exchange. No middens or other cultural resources occur on the parcel of land to be received by the church, but the parcel being received by the National Park Service has not yet been surveyed. This site could also potentially be occupied by evergreen hammocks along streambanks and coastal marshes. This species could therefore exist on the parcel of land being received by the church. Future site-specific surveys are therefore needed to confirm whether this species is present.

Pondspice occurs in the margins of swamps, cypress ponds, and sandhill depression ponds and in hardwood swamps (USFWS 2006). Since the parcel of land being received by the church borders a known wetland, this species could potentially occur on this site. Future site-specific surveys are therefore needed to confirm whether this species is present.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

No construction would occur on either site under the No Action Alternative. The No Action Alternative would therefore have no direct adverse effects on special status species.

Cumulative Impacts

Since no construction would occur, the No Action Alternative would have no cumulative adverse effects on special status species.

Conclusion

The No Action Alternative would have no direct adverse effects on special status species since no construction would occur.

The No Action Alternative would have no cumulative adverse effects on special status species. Continued current management would not result in impairment of any special status species on the two sites or in the surrounding area.

Impacts of Alternative G: The Preferred Alternative

Analysis

Alternative G could potentially affect ball-moss, climbing buckthorn and gopher tortoise that could potentially inhabit the site being received by the park. However, detailed site-specific surveys are needed to confirm whether these species are present. It is therefore not possible to make an accurate estimate of the potential direct effects of the land exchange on these species. The exchange would have no effect on the other species listed since they are not present on this site.

Alternative G could potentially affect ball-moss on the site being received by the church. However, detailed site-specific surveys are needed to confirm whether these species are present. It is therefore not possible to make an accurate estimate of the potential direct effects of the land exchange on this species. The exchange would have no effect on the other species listed since they are not present on this site.

Cumulative Impacts

Development and changes in land use on the island have reduced the native habitats in which listed species are found. Although the effects of these actions on individual species are not known, these types of actions have contributed to the reduction in numbers of these species. This proposed action would further reduce live oak/magnolia native forest, and make a minor contribution to the long-term adverse effects on listed species found in this forest type: ball-moss, climbing buckthorn and gopher tortoise. The project would have no cumulative effects on the other species that occur in the park since they do not occur in the parcels involved in the land exchange.

Conclusion

Alternative G could potentially affect ball-moss, climbing buckthorn and gopher tortoise that could potentially inhabit the site being received by the park, and ball-moss on the other site. However, detailed site-specific surveys are needed to confirm whether these species are present. It is therefore not possible to make an accurate estimate of the potential direct effects of the land exchange on these species. The exchange would have no effect on the other species listed since they are not present on this site.

Cumulative effects of the land exchange on ball-moss, climbing buckthorn, gopher tortoise and pondspice cannot be assessed at the present time for, since the presence of these species on the two sites has not yet been confirmed. The project would have no cumulative effects on the other species that occur in the park since they do not occur in the parcels involved in the land exchange.

Alternative G would not result in impairment of any special status species on the two sites or in the surrounding area.

Impacts of Alternative F

Analysis

The effects of Alternative F on special status species would be the same as those described for Alternative G.

Cumulative Impacts

The cumulative effects of Alternative F on special status species would be the same as those described for Alternative G.

Conclusion

The effects of Alternative F on special status species would be the same as those described for Alternative G.

IMPACTS OF ALTERNATIVES ON SOCIOECONOMICS

Affected Environment

The Fort Frederica National Monument is located on Saint Simons Island in Glynn County, Georgia. Saint Simons Island is located on the Atlantic Ocean coast and is separated from the remainder of Glynn County by the Frederica River and the Mackay River. Brunswick, the only incorporated city in Glynn County, is located on the mainland and is accessed from Saint Simon Island by the Torras Causeway.

Saint Simon Island has been a popular vacation destination for many years. Visitors enjoy relaxing on the beach, fishing, shopping in the Saint Simons Village area, bird and wildlife watching along the many marshes, sightseeing from the trolley, and visiting the Fort Frederica National Monument and Bloody Marsh. In addition, Jekyll Island, winter home to millionaires in the 1920's, is located just to the south of Saint Simons Island. Sea Island, ranked number six in *Worth* magazine's 2002 list of the 250 richest towns in the United States, is a community located just to the east of Saint Simons Island and is accessed via Sea Island Road. Sea Island is home to the Cloister at Sea Island, one of the world's top resorts, with five miles of private Atlantic Ocean beach.

The 2004 population of Glynn County is estimated at 71,357 and the population has grown nearly 6 percent since 2000. The estimated 2003 population of Brunswick was 15,984, an increase of less than 3 percent since 2000 (Epodunk, 2006). The population of Saint Simons Island in 2000 was estimated as 13,361 (Brunswick Area Transportation Study, 2004).

The average age of a Glynn County resident was 37.9 years, or approximately 2.5 years older than the age of an average Georgia resident. The 1999 median household income in Glynn County was \$38,765, or approximately \$3,668 less than the statewide median household income (Epodunk, 2006).

According to the 2003 County Business Patterns, accommodation and food service was the largest industry sector in Glynn County with 6,931 employees (United States Census Bureau, 2003). The second largest industry sector in Glynn County was retail with 5,074 employees. These employment characteristics support the contention that the area's

primary industry is tourism. While retail is also the second largest employment sector in the state of Georgia, manufacturing is the top employment sector in the state, but only by a margin of less than .03 percent.

Christ Church-Frederica is located on Frederica Road adjacent to the southeast corner of the Fort Frederica National Monument. The church is the second oldest Episcopal Church in Georgia and is also the third oldest in the nation. In the 1740's Charles Wesley preached under the oaks at the Christ Church site before the first structure was built. During the Civil War, Union troops commandeered the building and it was nearly destroyed. In 1884 the church was rebuilt by Anson Phelps Dodge, Jr., as a memorial to his first wife (Saint Simons Guide, 2006).

There are several buildings located on the 10.2 acre Christ Church site. There is a 190 seat church sanctuary building where worship services are held. The Winn Building is attached to the sanctuary and can seat an additional 40 persons when the main church building is filled. The Parish House contains the church offices, Sunday School meeting rooms, nursery, conference rooms, kitchen, and parish hall that can seat 180 persons for social events (Christ Church Frederica, 2006a).

A parish survey conducted in 2005 indicated that 57 percent of the respondents were retired. Approximately 76 percent of the respondents were married, but only 13 percent had children living at home. Therefore, it is concluded that the population of the parish is older than the general population of Glynn County.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on the economy of the area. There would be no construction activity, so there would be no local workers involved in constructing the facilities at the church or improvements at the park. There would be no materials purchased locally as part of these construction activities. The church would not benefit from the improvements that are planned as part of the action alternatives.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and all will spend money in the area. Additional businesses will open on St. Simons to support this population, resulting in a minor long term, regional, direct beneficial effect on the economy of the area.

Conclusions

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on the economy of the area.

Impacts of Alternative G: The Preferred Alternative

Analysis

The construction of Alternative G could have a minor, short term, local, indirect beneficial effect on the economy the St. Simons/Brunswick area. Alternative G involves construction of a parking facility and three buildings at the property received by Christ Church, and the possible construction of restrooms, sidewalks, and parking facilities at the property received by Fort Frederica. The companies that are hired to construct these improvements could be located in the area and many of the materials used to construct these improvements could be purchased in the area. The workers used to construct the improvements could be residents of the St. Simons/Brunswick area.

The operation of Alternative G would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area. Alternative G would not attract a significant number of tourists to the park or to St. Simons Island. However, the operation of Alternative G could have a moderate, long term, local, direct beneficial effect on the economy of the area near the park. Christ Church could expand onto the new property and increase the size of their parish. Local businesses, such as restaurants, could benefit from the increased attendance at the church.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and all will spend money in the area. Additional businesses will open on St. Simons to support this population, resulting in a minor long term, regional, direct beneficial effect on the economy of the area.

Conclusions

The construction of Alternative G could have a minor, short term, local, indirect beneficial effect on the economy of the St. Simons/Brunswick area. The operation of Alternative G would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area.

Impacts of Alternative F

Analysis

The construction of Alternative F could have a minor, short term, local, indirect beneficial effect on the economy the St. Simons/Brunswick area. Alternative F involves construction of a parking facility and three buildings at the property received by Christ Church, and construction of limited facilities at the property received by Fort Frederica. The companies that are hired to construct the Christ Church improvements could be located in the area and many of the materials used to construct these improvements could be purchased in the area. The workers used to construct the improvements could be residents of the St. Simons/Brunswick area.

The operation of Alternative F would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area. Alternative F would

not attract a significant number of tourists to the park or to St. Simons Island. However, the operation of Alternative F could have a moderate, long term, local, direct beneficial effect on the economy of the area near the park. Christ Church could expand onto the new property and increase the size of their parish. Local businesses, such as restaurants, could benefit from the increased attendance at the church.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and all will spend money in the area. Additional businesses will open on St. Simons to support this population, resulting in a minor long term, regional, direct beneficial effect on the economy of the area.

Conclusions

The construction of Alternative F could have a minor, short term, local, indirect beneficial effect on the economy the St. Simons/Brunswick area. The operation of Alternative F would have a negligible long term, regional, direct beneficial effect on the economy of the St. Simons/Brunswick area.

IMPACTS OF ALTERNATIVES ON VISITOR USE AND VIEWSHED

Affected Environment

Fort Frederica was established in 1736 by James Oglethorpe to protect the southern boundary of his new colony of Georgia. Fort Frederica was a military outpost consisting of a fort and town. The entire 40 acre area was fortified with a palisade wall and earthen rampart. The fort itself consisted of a square structure with three diamond-shaped bastions and a projecting spur battery (now washed away). The fort's location on a bend in the Frederica River allowed it to control approaches by enemy ships. The town of Frederica followed the traditional pattern of an English village. Similar in style if not in scale to Williamsburg, Virginia, its house lots contained gardens and outbuildings. Additional acreage elsewhere on the island was available for growing crops.

Oglethorpe's foresight in establishing Frederica was rewarded in 1742 when Spanish forces from St. Augustine, Florida and Havana, Cuba landed on Saint Simons Island. The battles of Gully Hole Creek and Bloody Marsh ensued, in which the British forces prevailed, confirming that the new colony of Georgia would be British. Today, the archeological remnants of Frederica are protected by the National Park Service.

Fort Frederica National Monument has much to offer visitors. Programs include a wide variety of self guided activities and explorations, ranger or docent led talks and tours, film showings, a museum, and a museum shop with a variety of historical books, children's games and reproductions. A visitor center is open seven days a week on every day of the year except Christmas. A fee of \$3.00 is charged to enter the park, with children 15 years of age or younger admitted for free.

The Fort Frederica National Monument hosted over 365,000 visitors in 2005 (National Park Service, 2006a). Visitation in 2005 increased nearly 44 percent from 2004 visitation

levels. Visitation levels at the park remained rather consistent from 2000 to 2004 with annual visitation ranging from 244,000 to 255,000. The year 2001 was the exception when over 292,000 visitors enjoyed the park. In 2004 and 2005, March and April were the peak visitation months at the park. In 2002 and 2003, the summer months were more predominant, with July being the month with the highest visitation. The average visitor stays at the park approximately 1-1/2 hours. The average visitor watches the orientation film, views the exhibits in the museum, and takes a self guided tour of the fort (National Park Service, 2006b).

The view from the site of the historic town and fort is generally historic features and forest in all directions except west. To the west, the view is open over the Frederica River and marshland. To the southwest, the city of Brunswick can be seen in the far distance. Except from the river, the structures of Fort Frederica National Monument cannot be seen from off the site.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on visitor use and viewshed. There would be no construction activity that would disrupt activities at the park. Since no construction would occur, there would no cumulative effects under this alternative.

Cumulative Effects

Alternative E would have no cumulative effects on visitor use or viewshed since no new facilities would be constructed or operated.

Conclusions

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on visitor use and viewshed.

Impacts of Alternative G: The Preferred Alternative

Analysis

The construction of Alternative G could have a minor, short term, local, indirect adverse effect on visitor use and viewshed at the park. The construction activities at Christ Church could be seen by park visitors as they enter the park, but should not be seen after entering the park. The moving of construction equipment and materials at the Christ Church site could cause minor delays in visitors accessing the park. Noise and odors from construction activities could be noticeable from the visitor center parking lot, but should be minimized inside the visitor center or at the fort.

The operation of Alternative G could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park. The improvements constructed by the park would not attract a significant number of tourists to the park or to St. Simons Island. However, park visitors would learn about the features located at the property received by the park and may choose to extend their visit and tour the new parcel. Also, the expansion of Christ

Church could allow the church to increase the size of their parish and also attract more visitors to the church. This would increase awareness of Fort Frederica and could increase attendance at the park. The proposed Christ Church parking lot and other church facilities are approximately 400 feet from the visitor center parking lot and separated by a stand of trees. Therefore, the Church parking lot and improvements should not be seen by the park visitor inside the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Many of these new residents will choose to visit Fort Frederica and may also bring visiting friends and relatives to the park. This would result in more visitors to the park to learn of the history of Fort Frederica. None of these developments should affect the viewshed from the populated areas of Fort Frederica due to a forested buffer. Overall, the development of these cumulative actions along with the Fort Frederica proposed action should result in a minor, long term, local, direct, beneficial effect on visitor use and viewshed.

Conclusions

The construction of Alternative G could have a minor, short term, local, indirect adverse effect on visitor use and viewshed at the park. The operation of Alternative G could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park.

Impacts of Alternative F

Analysis

The construction of Alternative F could have a minor, short term, local, indirect adverse effect on visitor use and viewshed at the park. The construction activities at Christ Church could be seen by park visitors as they enter the park, but should not be seen after entering the park. The moving of construction equipment and materials at the Christ Church site could cause minor delays in visitors accessing the park. Noise and odors from construction activities could be noticeable from the visitor center parking lot, but should be minimized inside the visitor center or at the fort.

The operation of Alternative F could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park. The improvements constructed by the park would not attract a significant number of tourists to the park or to St. Simons Island. However, park visitors would learn about the features located at the property received by the park and may choose to extend their visit and tour the new parcel. Also, the expansion of Christ Church could allow the church to increase the size of their parish and also attract more visitors to the church. This would increase awareness of Fort Frederica and could increase attendance at the park. The proposed Christ Church parking lot and other church facilities are approximately 400 feet from the visitor center parking lot and separated by a stand of trees. Therefore, the Church parking lot and improvements should not be seen by the park visitor inside the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Many of these new residents will choose to visit Fort Frederica and may also bring visiting friends and relatives to the park. This would result in more visitors to the park to learn of the history of Fort Frederica. None of these developments should affect the viewshed from the populated areas of Fort Frederica due to a forested buffer. Overall, the development of these cumulative actions along with Alternative F should result in a minor, long term, local, direct, beneficial effect on visitor use and viewshed.

Conclusions

The construction of Alternative F could have a minor, short term, local, indirect adverse effect on visitor use and viewshed at the park. The operation of Alternative F could have a minor, long term, local, indirect beneficial effect on visitor use and no long term, direct or indirect, beneficial or adverse effect on viewshed at the park.

IMPACTS OF ALTERNATIVES ON TRANSPORTATION

Affected Environment

Fort Frederica National Monument is located on Saint Simons Island in Glynn County, Georgia. Torras Causeway provides sole access to the island from the mainland (see Figure 6). Frederica Road provides primary north – south access on the southern portion of Saint Simons Island. Near the park, Frederica Road diverts to the west and terminates at the park. Access to property north of the park is provided by Mimosa Drive and West Point Drive. Access to the northern portion of Saint Simons Island is provided by Lawrence Road and Couper Road. All of these facilities are two lane roadways.

In 2004, the average annual daily traffic on Fort Frederica Road, the entrance road to the park, was 898 vehicles per day (Georgia Department of Transportation, 2006). On Frederica Road near Major Wright Drive, the 2004 average annual daily traffic was 7,365 vehicles per day. A comparison of 2004 to 2000 traffic counts for this area of Saint Simons Island indicated that 2004 traffic volumes on these facilities are generally lower than 2000 traffic volumes. The *Saint Simons Island Transportation Study* indicated that Frederica Road to the west of Lawrence Road and to the south of Lawrence Road operated at level of service C conditions during all periods of the day during 2002, both on weekdays and on Saturdays (Georgia State Road and Tollway Authority, 2003). Level of service is an indicator of congestion on a roadway that ranges along a continuum from level of service A (free flow conditions) to level of service F (bumper to bumper congestion). However, traffic conditions along Frederica Road to the south of Palm Drive were more congested, with level of service D through F conditions being experienced during peak periods at various times of the year. Traffic volume and level of service information was not provided for Sundays, which is the peak traffic generation day for Christ Church.

In 2005, there were over 100 accidents on Frederica Road (Glynn County Sheriff's Office, 2006). However, only three of these accidents occurred near the park to the west

of Lawrence Road. In 2004, only one accident occurred on Frederica Road near the park.

The park has one primary parking lot located southeast of the visitor center. The lot contains 72 spaces plus 2 handicapped spaces. Park officials indicate that the lot is rarely filled, except for the Frederica Festival held by the National Park Service on the third weekend in February (National Park Service, 2006b). Christ Church – Frederica has no formal parking lot. Church attendees generally park on both sides of Frederica Road near the church (Christ Church – Frederica, 2006b).

Transit service is not currently available in Brunswick or Glynn County. The *Brunswick / Glynn County Transit Needs and Opportunities Study* indicates that transit service is planned in the future and a route would be provided from downtown Brunswick to Saint Simons Island by 2008 (Brunswick Area Transportation Study, 2004). However, service to Fort Frederica National Monument was not a part of the plan.

There are no significant roadway improvements programmed for the area near Fort Frederica National Monument by the Georgia Department of Transportation or Glynn County Public Works Department. However, Glynn County has several improvements programmed for the southern portion of Saint Simons Island. A traffic circle at the intersections of Kings Way Road / Demere Road / Sea Island Road is programmed for construction by 2010 (Glynn County Department of Public Works, 2006). A roundabout at the intersection of Demere Road / Frederica Road is programmed for construction by 2009. Finally, Airport Road, the access road to the Malcolm McKinnon Airport, is programmed to be improved to 4 lanes by 2009.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on transportation in the area. There would be no construction activity that would disrupt traffic on Frederica Road. There would be no additional vehicles attracted to the church for church activities.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and nearly all will drive their vehicles on St. Simons. The cumulative effects of this development and Alternative E would result in a minor to moderate long term, local, indirect adverse effect on transportation in the area.

Conclusions

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on transportation in the area.

Impacts of Alternative G: The Preferred Alternative

Analysis

The construction of Alternative G could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The construction activities at Christ Church will bring construction workers and material supply trucks into the area each day during the construction period. This could create additional traffic congestion in the area as workers and supply trucks arrive or leave. It is anticipated that most of the congestion would occur at the intersection of Frederica Road and Lawrence Road. No information is available to determine if the level of service would be degraded to unacceptable levels. However, several conditions support the assumption that service levels in the area would remain acceptable: (1) Frederica Road to the south of this intersection experienced level of service C conditions in 2002 and traffic volumes have generally decreased in this area of St. Simons in recent years. (2) Construction workers often arrive earlier than the traditional morning peak hour of traffic volumes and leave earlier than the traditional afternoon peak hour of traffic volumes and would have limited effect on the daily commuter traffic. (3) This intersection is controlled by a traffic circle, which work well under relatively low volume conditions.

The operation of Alternative G could have a minor, long term, local, indirect adverse effect on transportation in the area near the park. The improvements constructed by the park would not attract a significant number of tourists to the park or to St. Simons Island. However, the expansion of Christ Church could allow the church to increase the size of their parish and also attract more visitors to the church. The existing church building seats 190 to 230 persons. The proposed church building will seat 400 persons initially, but can be expanded to seat 600 persons (Christ Church Frederica, 2006b). Therefore, the new church building could attract approximately 160 percent more attendees than the current church building. Assuming that the current persons per vehicle for church attendees remains constant into the future and the number of Sunday services remains constant, traffic generation of the church on Sundays could increase by 160 percent. While church related traffic could increase by 160 percent during each of the Sunday services, background traffic on urban roadways is generally lower on Sundays than on any other day of the week. To offset this, Sundays is generally one of the higher attendance days of the week at many national parks and the entrance to Fort Frederica is just to the north of the church. Neither Sunday traffic volumes on St. Simons roads or Sunday attendance are available. Overall, it is anticipated that congested traffic conditions would be short in duration and localized to the area around the church. If congested traffic conditions becomes a problem, the church may hire off-duty Glynn County police to help control the traffic leaving the parking lot.

Cumulative effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and nearly all will drive their vehicles on St. Simons. The cumulative effects of this development and Alternative G would result in a minor to moderate long term, local, indirect adverse effect on transportation in the area.

Conclusion

The construction of Alternative G could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The operation of Alternative G could have a minor, long term, local, indirect adverse effect on transportation in the area near the park.

Impacts of Alternative F

Analysis

The construction of Alternative F could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The construction activities at Christ Church will bring construction workers and material supply trucks into the area each day during the construction period. This could create additional traffic congestion in the area as workers and supply trucks arrive or leave. It is anticipated that most of the congestion would occur at the intersection of Frederica Road and Lawrence Road. No information is available to determine if the level of service would be degraded to unacceptable levels. However, several conditions support the assumption that service levels in the area would remain acceptable: (1) Frederica Road to the south of this intersection experienced level of service C conditions in 2002 and traffic volumes have generally decreased in this area of St. Simons in recent years. (2) Construction workers often arrive earlier than the traditional morning peak hour of traffic volumes and leave earlier than the traditional afternoon peak hour of traffic volumes and would have limited effect on the daily commuter traffic. (3) This intersection is controlled by a traffic circle, which work well under relatively low volume conditions.

The operation of Alternative F could have a minor, long term, local, indirect adverse effect on transportation in the area near the park. The improvements constructed by the park would not attract a significant number of tourists to the park or to St. Simons Island. However, the expansion of Christ Church could allow the church to increase the size of their parish and also attract more visitors to the church. The existing church building seats 190 to 230 persons. The proposed church building will seat 400 persons initially, but can be expanded to seat 600 persons (Christ Church Frederica, 2006b). Therefore, the new church building could attract approximately 160 percent more attendees than the current church building. Assuming that the current persons per vehicle for church attendees remains constant into the future and the number of Sunday services remains constant, traffic generation of the church on Sundays could increase by 160 percent. While church related traffic could increase by 160 percent during each of the Sunday services, background traffic on urban roadways is generally lower on Sundays than on any other day of the week. To offset this, Sundays is generally one of the higher attendance days of the week at many national parks and the entrance to Fort Frederica is just to the north of the church. Neither Sunday traffic volumes on St. Simon roads or Sunday attendance figures at Fort Frederica are available. Overall, it is anticipated that congested traffic conditions would be short in duration and localized to the area around the church. If congested traffic conditions becomes a problem, the church may hire off-duty Glynn County police to help control the traffic leaving the parking lot.

Cumulative effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Some of these residents will work in the area and nearly all will drive their vehicles on St. Simons. The cumulative effects of this development and the proposed action would result in a minor to moderate long term, local, indirect adverse effect on transportation in the area.

Conclusion

The construction of Alternative F could have a minor, short term, local, indirect adverse effect on transportation in the area near the park. The operation of Alternative F could have a minor, long term, local, indirect adverse effect on transportation in the area near the park.

IMPACTS OF ALTERNATIVES ON SOUNDSCAPE / NOISE

Affected Environment

Fort Frederica National Monument is located in the Brunswick, Georgia metropolitan area. While the area to the west of the park is vacant marshland, the areas on the other sides of the park are either developed or developing. These land uses are primarily residential and institutional (church) uses, so they generally contribute little to the ambient noise levels at the park. The soundscape within the park is generally suburban in nature near the visitor center and rural in nature near the fort. Near the visitor center, trucks and other vehicles passing on Frederica Road can be heard, as well as vehicles accessing the parking lot. Buses parked at the parking lot are required to turn off their engines to reduce noise and pollution. The sounds that a visitor hears near the fort are primarily birds, insects, wind, and other natural sounds. Much of the perimeter of the park is wooded and this, along with the distance from the potential noise sources, attenuates most of the suburban sounds. No ambient sound monitoring was conducted specifically for this project.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on soundscape and noise. There would be no construction activity that would disrupt activities at the park. Since there would be no construction or other new noise creating actions associated with this alternative, Alternative E would have no cumulative effects on soundscape or noise.

Cumulative Effects

Alternative E would have no cumulative effects on soundscape and noise since no new facilities would be constructed or operated.

Conclusions

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on soundscape and noise.

Impacts of Alternative G: The Preferred Alternative

Analysis

The construction of Alternative G could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The construction activities at Christ Church could be heard by park visitors as they enter the park and as they park their car at the visitor parking lot. Once visitors enter the visitor center and the fort, most of the construction noise should be undetectable.

The operation of Alternative G would have a negligible, long term, local, direct adverse effect on soundscape and noise at the park. The noise from the property acquired by the park would be from visitors accessing the site. Most of the noise from the property acquired by the church would be from vehicles accessing the parking lot and church attendees. The greatest share of this noise would occur on Sundays, and it would be largely undetectable from the park. There would be a loss of approximately 6 acres of wooded habitat that would contain natural sound of insects, wildlife and birds, but this would be more than offset by the 8.7 acre gain in habitat with the property acquired by the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Nearly all of these residents and visitors will drive their vehicles on St. Simons. The cumulative effects of this development and the proposed action would result in a negligible to minor long term, local, indirect adverse effect on soundscape and noise in the area.

Conclusion

The construction of Alternative G could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The operation of Alternative G would have a negligible, long term, local, direct adverse effect on soundscape and noise at the park.

Impacts of Alternative F

Analysis

The construction of Alternative F could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The construction activities at Christ Church could be heard by park visitors as they enter the park and as they park their car at the visitor parking lot. Once visitors enter the visitor center and the fort, most of the construction noise should be undetectable.

The operation of Alternative F would have a negligible, long term, local, direct adverse effect on soundscape and noise at the park. The noise from the property acquired by the

park would be from visitors accessing the site. Most of the noise from the property acquired by the church would be from vehicles accessing the parking lot and church attendees. The greatest share of this noise would occur on Sundays, and it would be largely undetectable from the park. There would be a loss of approximately 6 acres of wooded habitat that would contain natural sound of insects, wildlife and birds, but this would be more than offset by the 8.7 acre gain in habitat with the property acquired by the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Nearly all of these residents and visitors will drive their vehicles on St. Simons. The cumulative effects of this development and the proposed action would result in a negligible to minor long term, local, indirect adverse effect on soundscape and noise in the area.

Conclusion

The construction of Alternative F could have a minor, short term, local, direct adverse effect on soundscape and noise at the park. The operation of Alternative F would have a negligible, long term, local, direct adverse effect on soundscape and noise at the park.

IMPACTS OF ALTERNATIVES ON PARK OPERATIONS

Affected Environment

The superintendent of the Fort Frederica National Monument is responsible for managing the park, its staff, concessionaires, all programs, attractions, and its relations with persons, agencies and organizations, community services, facilities management, and fee collection. The Fort Frederica Association is currently the only concession at the park. They provide soft drink and water vending machines.

The park has 12 permanent park staff and 2 seasonal employees who provide the full scope of functions and activities to accomplish management objectives and meet requirements in law enforcement, emergency services, public health and safety, science, resource protection and management, visitor services, interpretation and education, community services, utilities, housing, and fee collection. The park currently has 5 staff that have been involved in the land exchange activities with the church.

Impacts of Alternative E: No Action / Continue Current Management

Analysis

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on park operations. There would be no construction activity that would disrupt activities at the park or require staff resources.

Cumulative Effects

Since no changes in management would occur, this alternative would have no cumulative effects on park operations.

Conclusions

Implementation of the No Action Alternative would result in no short term or long term, direct or indirect, beneficial or adverse effects on park operations.

Impacts of Alternative G: The Preferred Alternative

The construction of Alternative G could have a moderate, short term, local, indirect adverse effect on park operations. The construction activities at the property acquired by the park would include hiking trails and interpretive areas that would be constructed or managed by park staff. In addition, restrooms, sidewalks, and parking areas may be constructed which would require construction management by park staff.

The operation of Alternative G could have a moderate, long term, local, indirect adverse effect on park operations. As the park is giving undeveloped land to the church in exchange for land that is to be developed, the maintenance requirement at the park would be increased. As Alternative G has additional facilities over Alternative F, including facilities that would require daily maintenance, the maintenance requirement would be higher for Alternative G. The park rangers would have an additional area to patrol that is outside the current boundary of the park. The interpretive staff at the park would have an additional area to provide service that is outside the current boundary of the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Many of these new residents will choose to visit Fort Frederica and may also bring visiting friends and relatives to the park. This would result in more visitors to the park to learn of the history of Fort Frederica. The additional visitors would tour the park, ask questions of the Rangers, and use the restrooms. This additional visitation would result in a negligible, long term, local, direct, adverse effect on park operation.

Conclusions

The construction of Alternative G could have a moderate, short term, local, indirect adverse effect on park operations. The operation of Alternative G could have a moderate, long term, local, indirect adverse effect on park operations.

Impacts of Alternative F

Analysis

The construction of Alternative F could have a minor to moderate, short term, local, indirect adverse effect on park operations. The construction activities at the property acquired by the park would include hiking trails and interpretive areas that would be constructed or managed by park staff.

The operation of Alternative F could have a moderate, long term, local, indirect adverse effect on park operations. As the park is giving undeveloped land to the church in exchange for land that is to be developed, the maintenance requirement at the park

would be increased. The park rangers would have an additional area to patrol that is outside the current boundary of the park. The interpretive staff at the park would have an additional area to provide service that is outside the current boundary of the park.

Cumulative Effects

The West Point Plantation, the Landings at West Point, Frederica Township, Marsh's Edge, Frederica Stables, Township Bluff, Village Creek Way, and Oak Village will attract additional people to St. Simons either as permanent residents or visitors. Many of these new residents will choose to visit Fort Frederica and may also bring visiting friends and relatives to the park. This would result in more visitors to the park to learn of the history of Fort Frederica. The additional visitors would tour the park, ask questions of the Rangers, and use the restrooms. This additional visitation would result in a negligible, long term, local, direct, adverse effect on park operation.

Conclusions

The construction of Alternative F could have a minor to moderate, short term, local, indirect adverse effect on park operations. The operation of Alternative F could have a moderate, long term, local, indirect adverse effect on park operations.

CONSULTATION AND COORDINATION

Scoping is the effort to involve agencies and the general public in determining the scope of issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates issues that are not important; allocates assignments among the interdisciplinary team members and other participating agencies; identifies related projects and associated documents; identifies other permits, surveys, and consultations required by other agencies; and creates a schedule which allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping includes any interested agency or any agency with jurisdiction by law or expertise (including the Advisory Council on Historic Preservation, the State Historic Preservation Officer, and Indian tribes) to obtain early input (see Appendix C).

The National Park Service conducted internal scoping with appropriate National Park Service staff, as well as federal, state and local agencies, and external scoping with the general public and affected groups via a newsletter published in May, 2006. The internal scoping meetings were held at park headquarters. Scoping letters were mailed to the following agencies (a copy of the scoping letters and mailing list are included in Appendix C):

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Georgia State Clearinghouse
- Georgia Department of Transportation
- Georgia Historic Preservation Office
- Georgia Department of Natural Resources
- Georgia Natural Heritage Program

External scoping meetings will be held on St. Simons Island during the summer of 2006. Comments will be solicited during external scoping and incorporated into a final environmental assessment.

Planning Team Participants

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RICHARD SUSSMAN	CHIEF OF PLANNING	NATIONAL PARK SERVICE, SOUTHERN REGION
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- 2006c Email correspondence from Kim Coons, Supervisory Park Ranger, regarding park characteristics. March 27, 2006.

APPENDICIES

**APPENDIX A
SCOPING LETTERS**

**FORT FREDERICA LAND EXCHANGE
GENERAL MANAGEMENT PLAN/EA AMENDMENT
MAILING LIST**

**FEDERAL, STATE AND LOCAL
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United States Department of the Interior

**NATIONAL PARK SERVICE
Fort Frederica National Monument
6515 Frederica Road
St. Simons Island, GA 31522**

REPLY REFER TO:
Proposed Land Exchange

April 20, 2006

Name and Address Here

Subject: Fort Frederica National Monument Land Exchange Environmental
Assessment

Dear xxxx:

The Fort Frederica National Monument, located on St. Simons Island, Georgia, is proposing to complete an exchange of land with Christ Church of St. Simons Island. The proposed action is to exchange approximately 6 acres of land that is currently part of the monument for approximately 8.7 acres of land to be acquired by the church. Figure 1 shows the location of the monument, and Figure 2 shows the locations of the two parcels of land involved in the proposed exchange. The property to be received by the church is located at the southern edge of the park on the north side of Stevens Road. The property that would be received by the National Park Service is located to the north of Delamotte Road on the east side of Frederica Road to the northeast of the monument's main entrance.

The proposed land exchange would constitute an amendment to the existing General Management Plan for the monument. The purpose of the amendment is to select and recommend implementation of a preferred alternative action for managing the new parcel of land received by the park. The parcel received by the National Park Service would be included within a revised park boundary and managed accordingly. On the parcel to be received by the church, several new facilities, include a new main church building, classrooms, a courtyard, a passenger drop-off area, and parking for approximately 225 vehicles, would be constructed and operated.

An environmental assessment is being prepared in conjunction with the proposed amendment to meet the requirements of the National Environmental Policy Act. Although public scoping is not typically required for an environmental assessment, the National Park Service is conducting public scoping for this General Management Plan Amendment/Environmental Assessment to ensure input from all interested stakeholders. As part of the scoping process, the National Park Service would therefore like to know what issues and concerns your organization might have regarding the proposed exchange. We will incorporate your comments into the environmental assessment as required.

Thank you very much for responding to this request. Please send your comments to the following address:

Kim Coons
Supervisory Park Ranger
Fort Frederica National Monument
6515 Frederica Road
St. Simons Island, GA 31522
Phone: 912-638-3639
E-mail: Kim_Coons@nps.gov

Sincerely,

Kim Coons
Supervisory Park Ranger

cc: xxxxx w/ encl.



United States Department of the Interior

**NATIONAL PARK SERVICE
Fort Frederica National Monument
6515 Frederica Road
St. Simons Island, GA 31522**

REPLY REFER TO:
Proposed Land Exchange

April 20, 2006

Name and Address Here

Subject: Section 106 Consultation, Environmental Assessment for Land Exchange Proposal, Fort Frederica National Monument, St. Simons Island, Georgia

Dear Mr. xxx:

The purpose of this letter is to provide your office formal notice that the National Park Service is beginning the development of an Environmental Assessment (EA) for a proposed land exchange between Fort Frederica National Monument and Christ Church of Saint Simons Island, Georgia. The proposed action is to exchange approximately 6 acres of land that are currently part of Fort Frederica National Monument for approximately 8.7 acres of adjacent land to be acquired by the church. Figure 1 shows the location of the Fort Frederica National Monument, and Figure 2 shows the locations of the two parcels of land involved in the proposed exchange. The property to be received by the church is located at the southern edge of the park on the north side of Stevens Road. The property that would be received by the National Park Service is located to the north of Delamotte Road on the east side of Frederica Road, northeast of the monument's main entrance (Figure 2).

As you may know, a General Management Plan (GMP) for Fort Frederica was completed and approved on November 15, 2002. Subsequently, on November 30, 2004, Congress passed Public Law 108-417, authorizing the Secretary of the Interior to exchange National Monument land adjacent to the boundary with Christ Church of Saint Simons Island for land across Frederica Road to the northeast. This action requires compliance with the National Environmental Policy Act (NEPA), and the National Historic Preservation Act (NHPA) as well as other laws and National Park Service policies.

The proposed land exchange would require an amendment to the existing General Management Plan for the monument. The purpose of the amendment is to select and recommend implementation of a preferred alternative action for managing the new parcel of land received by the park. The parcel received by the National Park Service would be included within a revised park boundary and managed accordingly. On the parcel to be received by the church, several new facilities, including a new main church

building, classrooms, a courtyard, a passenger drop-off area, and parking for approximately 225 vehicles, would be constructed and operated.

An important part of this project was the determination of whether or not the Fort Frederica lands proposed for exchange with Christ Church of St. Simons are eligible for the National Register of Historic Places or if it contains properties eligible for the Register. The approximately 6 acre parcel proposed for exchange was surveyed and tested by the Southeast Archeological Center (SEAC) of the National Park Service in August-September 2005. Of the 60 shovel tests, only four contained cultural materials, and none of these represented a significant historic or prehistoric discovery. The majority of the project area is situated in a low lying area with standing water, making it an unlikely site for either prehistoric or historic occupation. The only cultural features noted in the area were a series of neglected trails that were active paths prior to National Park Service acquisition of the land from the Frederica Yacht Club. No historic properties were identified within the project area.

Fort Frederica National Monument is listed on the National Register of Historic Places so even though we are just beginning to plan and gather information for the project, we recognize that its eventual implementation would have the potential to affect this National Register property. Therefore, we are formally initiating consultation with your office in accordance with 36 CFR 800.3(c) and with the 1995 Servicewide Programmatic Agreement among your office, the Advisory Council on Historic Preservation, and the National Park Service. (A copy of this letter has been sent to the Advisory Council on Historic Preservation).

An EA is being prepared in conjunction with the proposed amendment to meet the requirements of the National Environmental Policy Act. This letter also serves to notify your office that we plan to use the EA for the project to accomplish compliance for both Section 106 and the National Environmental Policy Act (as described in 36 CFR 800.8 (a-c)). As indicated above, the Advisory Council on Historic Preservation has been notified regarding inclusion of Section 106 compliance within the EA process.

The EA will provide detailed descriptions of alternative programs that would implement the land exchange with different management zoning concepts, as well as a no-action alternative as required by law. The EA also will analyze the potential impacts associated with possible implementation of each alternative and will describe the rationale for choosing the preferred alternative. These details will be reiterated in a Section 106 Summary in the EA. Also contained in the EA will be measures that would help avoid adverse effects on cultural resources.

The purpose of this letter is to request your comments regarding any issues that you might have regarding the proposed project. As soon as the EA is completed, we will send it to you for your review, comment, and concurrence that the Section 106 process has been completed.

We look forward to your participation and input on the planning process. We believe that your ongoing participation will continue to result in better planning for cultural resources management, and will help ensure that cultural resources are adequately considered during preparation of the plan and the accompanying EA. Consultation and coordination with other governmental agencies and with interested publics also is underway.

Thank you very much for responding to this request. Please send your comments to the following address:

Kim Coons
Supervisory Park Ranger
Fort Frederica National Monument
6515 Frederica Road
St. Simons Island, GA 31522
Phone: 912-638-3639
E-mail: Kim_Coons@nps.gov

Sincerely,

Kim Coons
Supervisory Park Ranger

cc: xxxxxx w/ encl.

APPENDIX B
WRITTEN COMMENT LETTERS

APPENDIX C
COPY OF PUBLIC SERVICE (PRESS RELEASE) STATEMENT



National Park Service
U.S. Department of the Interior

Fort Frederica
National Monument

6515 Frederica Road
St. Simons Island, GA 31522

912 638-3639 phone
912 634-5357 fax

Fort Frederica News Release

Release date: Immediate

Contact(s): Kim Coons

Phone number: 912 638-3639

Date: 06-09-06

PUBLIC INVITED TO COMMENT ON PROPOSED LAND EXCHANGE FORT FREDERICA AND CHRIST CHURCH

The National Park Service (NPS) has published a draft General Management Plan Amendment and Environmental Assessment (GMPA/EA) for Fort Frederica National Monument. The purpose of this Environmental Assessment is to evaluate the potential impacts resulting from a proposed exchange of land between Fort Frederica and adjacent Christ Church. Two alternative management strategies for the land that Fort Frederica will be receiving are presented within the amendment.

On Tuesday, June 27, 2006, the National Park Service invites all interested individuals, groups, park neighbors, organizations, agencies, and public officials to a public open house to comment on or ask questions about the draft GMPA/EIA. The open house will take place at the Fort Frederica Visitor Center from 3 pm until 7 pm. There is no formal presentation, so interested parties are welcome at any time during the open house hours.

Copies of the plan may be obtained at the Fort Frederica National Monument Visitor Center. The plan is also available for viewing via the Internet at <http://parkplanning.nps.gov>. Once on the website go to "Choose a Park" drop-down window, select Fort Frederica National Monument and then click "Go". The National Park Service will be accepting comments on the draft plan until July 31, 2006.

Background: Fort Frederica National Monument is one of America's national parks. Established in 1936 and dedicated in 1947, the park preserves the incredibly rich archaeological remains of one of Great Britain's strongest forts in the colony of Georgia. It was on St. Simons Island in 1742 that British troops from Frederica and Darien decisively defeated Spanish Floridians in the Battles of Gully Hole Creek and Bloody Marsh. Ironically, the very battles that saved Frederica from destruction by the Spanish doomed the town and fort to ruins. Without a Spanish threat, Britain pulled Frederica's soldiers out of the fort and the settlers left as the town's economy suffered. All but abandoned, the town of Frederica slipped into history. Time has worn down the earthworks protecting the town, yet the ruins and foundations of the buildings remain as a visual reminder of the struggle for empire on Georgia's coast. Today, the National Park Service, with assistance from the Fort Frederica Association and volunteers, preserve these symbols of our colonial past and share them with visitors from around the world.